Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Loudoun

STREAM NAME: Piney Run

HYDROLOGIC UNIT: 02070008

TMDL ID: VAN-A01R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.52 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Mouth of unnamed lake on Piney Run

RIVER MILE: 3.52

LATITUDE: 39.29389 **LONGITUDE:** -77.73583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 39.32139 **LONGITUDE:** -77.71389

Segment begins at the mouth of an unnamed lake on Piney Run downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (1998)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (5 of 17 samples - 29.4%) were recorded at DEQ's ambient water quality monitoring station (1APIA001.80) at the Route 671 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Loudoun

STREAM NAME: South Fork Catoctin Creek

HYDROLOGIC UNIT: 02070008

TMDL ID: VAN-A02R-03

ASSESSMENT CATEGORY: 4A/5D

SEGMENT SIZE: 17.31 - Miles

INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2002

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of South Fork Catoctin Creek

RIVER MILE: 17.31

LATITUDE: 39.16778 **LONGITUDE:** -77.79583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Catoctin Creek

RIVER MILE: 0.00

LATITUDE: 39.20944 **LONGITUDE:** -77.62167

Segment begins at the headwaters of South Fork Catoctin Creek and continues downstream to the confluence with Catoctin Creek. The segment length was extended from the 1998 303(d) listing to account for upstream special study monitoring stations on the South Fork Catoctin Creek.

The biological impairment begins at the Purcellville town limits and continues downstream to the confluence of an unnamed tributary with South Fork Catoctin Creek, approximately 0.75 rivermiles upstream from Route 287 bridge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform - 17.31 miles (2002), General Standard (Benthic) - 3.4 miles (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion were recorded at DEQ's water quality monitoring stations at the Route 698 bridge (1ASOC001.66; 8 of 17 samples - 47.1%), the Route 738 bridge (1ASOC007.06; 3 of 11 samples - 27.3%), and the Route 690 bridge (1ASOC012.38; 4 of 12 samples - 33.3%) to assess this segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

In addition, biological monitoring at stations 1ASOC011.98 and 1ASOC012.60 located 100 yards downstream of Rt. 611 and 20 yards upstream from Rt. 690, respectively, determined that the benthic community in part of this segment is moderately impaired. As a result, 3.4 stream miles were assessed as not supporting of the Aquatic Life Use goal for the 2004 water quality assessment. The aquatic life use impairment begins at the Purcellville town limits and continues downstream to the confluence of an unnamed tributary with South Fork Catoctin Creek, approximately 0.75 rivermiles upstream from the Rt. 287 bridge.

The aquatic life use impairment is not associated with the consent decree. The TMDL for this impairment may extend to 2016.

Sufficient exceedances of the total phosphorus screening value (200 ug/L) were recorded at station 1ASOC001.66 (2 of 17 samples - 11.8%) to assess part of this segment as fully supporting with observed effects of the Aquatic Life Use goal. The observed effects are noted in the 5.77-mile segment beginning at the confluence of an unnamed tributary to South Fork Catoctin Creek, approximately 0.55 rivermiles upstream of Route 9, downstream to its confluence to Catoctin Creek.

Fact Sheets for Category 5 Waters

IMPAIRMENT SOURCE: NPS, NPS (unconfirmed)

A fecal coliform TMDL for the Catoctin Creek watershed was submitted to the U.S. EPA on April 29, 2002 and approved May 31, 2002. The sources of fecal coliform bacteria requiring reductions are livestock and wildlife waste delivered directly to the stream, and human contributions from straight pipes.

The aquatic life use impairment source is thought to be non-point source pollution from urban stormwater run-off.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Loudoun

STREAM NAME: Limestone Branch

HYDROLOGIC UNIT: 02070008

TMDL ID: VAN-A03R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.75 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Limestone Branch

RIVER MILE: 4.75

LATITUDE: 39.17417 **LONGITUDE:** -77.57977

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 39.16389 **LONGITUDE:** -77.52028

Segment begins at the headwaters of Limestone Branch and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (7 of 18 samples - 38.9%) were recorded at DEQ's ambient water quality monitoring station (1ALIM001.16) at the Route 15 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

A bacteria TMDL is scheduled to be submitted to EPA April 1, 2004.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Loudoun

STREAM NAME: Goose Creek

HYDROLOGIC UNIT: 02070008

TMDL ID: VAN-A08R-01

ASSESSMENT CATEGORY: 4A/5D

SEGMENT SIZE: 4.77 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Goose Creek impoundment

RIVER MILE: 4.77

LATITUDE: 39.05556 **LONGITUDE:** -77.52639

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 39.10083 **LONGITUDE:** -77.47778

Segment begins below the Goose Creek impoundment and continues downstream to its confluence with the Potomac River.

The 1998 303(d) report identified an 8.66-mile impaired segment of Goose Creek extending from the confluence with Beaverdam Creek (from Beaverdam Creek Reservoir) downstream to the confluence with the Potomac River. This segment size has been reduced in the 2002 303(d) report to account for the impoundment on Goose Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use, Aquatic Life Use

IMPAIRMENT CAUSE: Fecal Coliform (2002), General Standard (Benthic) - (1998)

Benthic macroinvertebrate biological monitoring rates this stream segment as slightly impaired. This segment was included in Part I of the 1998 303(d) report as partially supporting the aquatic life use due to a moderate benthic impairment noted at the DEQ biological monitoring station 1AGOO002.38 at Route 7. Based on biological survey results from the 2002 and 2004 305(b) assessment periods, this stream segment was determined to be slightly impaired. While the benthic community integrity showed an improvement from the 1998 303(d) list, this was not sufficient to warrant removing this segment from the impaired waters list. Therefore, the stream segment remains impaired for the benthic macroinvertebrate community.

Additionally, the segment was listed with a swimming use impairment in the 2002 303(d) impaired waters list due to fecal coliform bacteria exceedances. The fecal coliform exceedance rate was 11.8% in the 2002 assessment cycle. For this assessment, the swimming use was found to be fully supported based on a fecal coliform bacteria exceedance rate of 8.3% (4 of 48 samples).

IMPAIRMENT SOURCE: NPS, Unknown

A fecal coliform TMDL for the Goose Creek watershed was approved by the U.S. EPA on May 31, 2003. The sources of fecal coliform bacteria requiring reductions are direct deposition from cattle, pasture run-off, and human contributions from failing septics systems and straight pipes.

A TMDL for the biological impairment is scheduled to be submitted to EPA in 2004.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Loudoun

STREAM NAME: Little River

HYDROLOGIC UNIT: 02070008

TMDL ID: VAN-A08R-02

ASSESSMENT CATEGORY: 4A/5D

SEGMENT SIZE: 6.13 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Hungry Run

RIVER MILE: 6.13

LATITUDE: 38.97194 **LONGITUDE:** -77.65583

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Goose Creek

RIVER MILE: 0.00

LATITUDE: 39.02083 **LONGITUDE:** -77.60222

Segment begins at the confluence of Hungry Run with Little River, approximately 1.5 river miles upstream from the Route 50 bridge, and continues downstream to its confluence with Goose Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (1998), General Standard (Benthic) - (1998)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion were recorded at DEQ's water quality monitoring stations at the Route 50 bridge (1ALIV004.78; 11 of 29 samples - 37.9%), and the Route 15 bridge (1ALIV001.70; 2 of 11 samples - 18.2%) to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

This segment was included in Part I of the 1998 303(d) report as partially supporting the aquatic life use due to a moderate benthic impairment noted at the DEQ biological monitoring station 1ALIV004.78 at Route 50. Based on biological survey results from the 2002 and 2004 305(b) assessment periods, this stream segment was determined to be slightly impaired. While the benthic community integrity showed an improvement from the 1998 303(d) list, this was not sufficient to warrant removing this segment from the impaired waters list. Therefore, the stream segment remains impaired for the benthic macroinvertebrate community.

IMPAIRMENT SOURCE: NPS, Unknown

A fecal coliform TMDL for the Goose Creek watershed was approved by the U.S. EPA on May 31, 2003. The sources of fecal coliform bacteria requiring reductions are direct deposition from cattle, pasture run-off, and human contributions from failing septics systems and straight pipes.

A TMDL for the biological impairment is scheduled to be submitted to EPA in 2004.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Loudoun

STREAM NAME: Broad Run

HYDROLOGIC UNIT: 02070008

TMDL ID: VAN-A09R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.88 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Beaverdam Run

RIVER MILE: 2.88

LATITUDE: 39.04446 **LONGITUDE:** -77.44501

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 39.07134 **LONGITUDE:** -77.44421

Segment begins at the confluence of Beaverdam Run with Broad Run, approximately 0.8 rivermiles upstream of Route 7, and continues downstream to the confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (5 of 36 samples - 13.9%) were recorded at DEQ's ambient water quality monitoring station at the Route 7 bridge (1ABRB002.15) to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

Fish tissue data revealed an exceedance of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) and of the risk-based tissue screening value (TSI) of 10 ppb for heptachlor epoxide at station 1ABRB002.15. Both of these exceedances were found in American Eel during the August 2001 sampling event. As a result, the Fish Consumption Use goal was assessed as fully supporting with an observed effect.

Additionally, the manganese taste and odor water quality criteria was exceeded in one of one sample in September 1998 resulting in an assessment of fully supporting with an observed effect for the Public Water Supply Use goal.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax, Loudoun

STREAM NAME: Sugarland Run

HYDROLOGIC UNIT: 02070008

TMDL ID: VAN-A10R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.75 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Folly Lick Branch

RIVER MILE: 5.75

LATITUDE: 38.99750 **LONGITUDE:** -77.37167

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 39.06167 **LONGITUDE:** -77.36806

Segment begins at the confluence of Folly Lick Branch to Sugarland Run and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (5 of 19 samples - 26.3%) were recorded at DEQ's ambient water quality monitoring station at the Route 7 bridge (1ASUG004.42) to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

In addition, biological monitoring data from citizen monitoring stations 1ASUG-14-LWC and 1ASUG-SLR3-SOS find medium probability of adverse conditions for biota.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax

STREAM NAME: Difficult Run

HYDROLOGIC UNIT: 02070008

TMDL ID: VAN-A11R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.93 - Miles

INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Captain Hickory Run

RIVER MILE: 2.93

LATITUDE: 38.97222 **LONGITUDE:** -77.27722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 38.97611 **LONGITUDE:** -77.23528

Segment begins at the confluence of Captain Hickory Run with Difficult Run, approximately 0.6 river miles upstream from the Route 683 bridge, and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic) - (1994), Fecal Coliform, e Coli (2004)

Biological monitoring at station 1ADIF000.86 at the Route 193 bridge determined that the benthic community in the stream is moderately impaired. As a result, 2.93 stream miles were assessed as not supporting the Aquatic Life Use goal for the 2004 water quality assessment.

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (9 of 41 samples - 22.0%) and e coli bacteria criterion (2 of 2 samples) were recorded at DEQ's ambient water quality monitoring station at the Route 193 bridge (1ADIF000.86) to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment. The recreation use impairment was added to this segment in 2004.

Fish tissue data revealed an exceedance of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) and of the risk-based tissue screening value (TSI) of 10 ppb for heptachlor epoxide at station 1ADIF000.86. Both of these exceedances were found in American Eel during the August 2001 sampling event. As a result, the Fish Consumption Use goal was assessed as fully supporting with an observed effect.

Additionally, the manganese taste and odor water quality criteria was exceeded at the same monitoring station in one of one sample during the assessment period. As a result, the Public Water Supply Use goal was assessed as fully supporting with an observed effect.

This segment was first listed for an aquatic life use impairment in the 1994 303(d) report. A benthic TMDL is scheduled to be developed by 2010. A TMDL to address the recreation use impairment may extend to 2016.

IMPAIRMENT SOURCE: Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Alexandria, Arlington

STREAM NAME: Four Mile Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A12E-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.25 - Sq. Mi.

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters

RIVER MILE: ~1.46

LATITUDE: 38.84389 **LONGITUDE:** -77.06972

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River at State Line.

RIVER MILE: 0.00

LATITUDE: 38.84111 **LONGITUDE:** -77.04667

Segment includes the tidal waters of Four Mile Run from rivermile 1.46 (approximately) downstream to the confluence with the Potomac River at the state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (1996), e Coli (2004), Fish Tissue - PCBs (2002)

Sufficient exceedances of the instantaneous fecal coliform (15 of 39 samples - 38.5%) and e coli bacteria criteria (2 of 5 samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station 1AFOU000.19 at the George Washington Parkway to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

Exceedance of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue was recorded in three species of fish samples collected in 1997 at monitoring station 1AFOU000.45 (brown bullhead catfish, white perch, largemouth bass). As a result, the waters were assessed as not supporting of the Fish Consumption Use goal. The fish tissue sampling event preceeds the 5-year data window for the 2004 assessment. However, since the results of this sampling event were the basis of a fish consumption use impairment listed in the 2002 303(d) report and no additional data have been collected, this segment reflects the results of the previous assessment for the fish consumption use (see Rule 8 of the 2004 assessment guidance).

The ER-M sediment screening value for chlordane (6 ppb dry weight) was exceeded in a sediment sample collected in June 1999 at monitoring station 1AFOU000.19. As a result, this stream segment was assessed as fully supporting with observed effects of the Aquatic Life Use goal for the following reasons.

This segment was first listed for a swimming use impairment due to fecal coliform bacteria exceedances in the 1998 303(d) report. A bacteria TMDL is scheduled to be developed by 2010. The TMDL to address the fish consumption use impairment may extend to 2014.

IMPAIRMENT SOURCE: Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Arlington, Fairfax

STREAM NAME: Pimmit Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A12R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.38 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Pimmit Run

RIVER MILE: 7.38

LATITUDE: 38.90222 **LONGITUDE:** -77.20528

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 38.92861 **LONGITUDE:** -77.11639

Segment begins at the headwaters of Pimmit Run and continues downstream to its confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion were recorded at DEQ's water quality monitoring stations at the Route 309 bridge (1APIM004.16; 5 of 16 samples - 31.3%) and the Route 120 bridge (1APIM000.15; 12 of 38 samples - 31.6%) to assess this segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

5.75 miles of this stream segment, from the headwaters to the confluence with Little Pimmit Run, are also assessed as fully supporting with observed effects of the Aquatic Life Use goal due to exceedances of the total phosphorus screening value (200 ug/L) recorded at station 1APIM004.16 (2 of 16 samples - 12.5%).

Citizen monitoring stations 1aPIM-PIM2-SOS and 1aPIM-PIM3-SOS both find high probability of adverse conditions for biota.

IMPAIRMENT SOURCE: Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Alexandria, Fairfax, Prince William, Stafford

STREAM NAME: VA Tidal Waters from Woodrow Wilson Bridge to

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A13E-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 20.3 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Woodrow Wilson Bridge

RIVER MILE: ~107.7

LATITUDE: 38.79306 **LONGITUDE:** -77.03972

DOWNSTREAM LIMIT:

DESCRIPTION: Brent Point at Mouth of Aquia Creek

RIVER MILE: ~72.2

LATITUDE: 38.39694 **LONGITUDE:** -77.31167

The segment includes the Potomac River and Virginia tidal waters from the Woodrow Wilson Bridge downstream (~33 miles) to Brent Point at the mouth of Aquia Creek. Segment includes the tidal waters contained in waterbodies VAN-A13E, VAN-A14E, VAN-A15E, VAN-A25E, and VAN-A26E.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs (2002)

The Virginia Department of Health (VDH) has issued a 'Health Advisory' for fishing in this segment of the Potomac River and tidal tributaries based on fish tissue analysis. As a result, this segment was assessed as not supporting of the Fish Consumption Use goal for the 2004 water quality assessment. The segment does not support the fish consumption use for Channel Catfish larger than 18 inches. Fish tissue analysis reveals PCB levels high enough for issuance of an advisory. The VDH advises limiting the amount of fish consumed from the segment to one, 8 oz. portion per month. Information on the health advisory and fish tissue sampling program can be viewed at http://www.vdh.state.va.us/HHControl/fishing_advisories.htm and http://www.deq.state.va.us/water/.

IMPAIRMENT SOURCE: VDH Fish Consumption Advisory

The source of impairment is unknown. PCBs are a group of man-made chemicals that can contain up to 209 individual compounds. Data indicate that long-term consumption of fish contaminated with PCBs could pose a human health risk. Information on VDH fish consumption advisories, prohibitions, or bans can be viewed at http://www.vdh.state.va.us.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Alexandria, Fairfax

STREAM NAME: Hunting Creek/Cameron Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A13E-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.71 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Approximately 0.22 rivermiles above Route 241 (Telegraph Rd.)

RIVER MILE: 2.58

LATITUDE: 38.80111 **LONGITUDE:** -77.08472

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 38.78444 **LONGITUDE:** -77.04444

Segment begins approximately 0.22 rivermiles above the Route 241 bridge (Telegraph Rd.) and continues downstream to the confluence with the Potomac River, to include the embayment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (1998), Fish Tissue - PCBs (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (11 of 39 samples - 28.2%) were recorded at DEQ's ambient water quality monitoring station 1AHUT000.01 at the George Washington Parkway to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

The segment is considered not supporting of the Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue was recorded in four species of fish samples collected in 2000 (white perch, carp, channel catfish, american eel) and two species in 1996 (carp and white perch) at the DEQ fish tissue/sediment sampling station 1AHUT000.01. The 1996 sampling event preceeds the data window for the 2004 assessment, but is pertinent historical information.

For the 2004 water quality assessment, the Aquatic Life Use goal was assessed as fully supporting with observed effects due to the following:

1. One sample exceeded the acute tidal freshwater ammonia criterion in June 1998 resulting in an assessment of the aquatic life and wildlife uses as fully supporting with an observed effect due to a single sample toxic pollutant exceedance.

2. Exceedances of the ER-M sediment screening value for chlordane (6 ppb dry weight) were detected in sediment samples collected in 1996, 1999, and 2000. Again, the 1996 sampling event preceeds the data window for the 2004 assessment, but is pertinent historical information.

Fact Sheets for Category 5 Waters

This segment was listed for a swimming use impairment due to fecal coliform bacteria exceedances in the 1998 303(d) report. A fecal coliform TMDL is scheduled to be developed by 2010. A TMDL to address the fish consumption use impairment may extend to 2014.

IMPAIRMENT SOURCE: Unknown, VDH Fish Consumption Advisory

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Alexandria, Fairfax

STREAM NAME: Backlick Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A13R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.45 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Backlick Run

RIVER MILE: 6.45

LATITUDE: 38.82028 **LONGITUDE:** -77.20278

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Holmes Run

RIVER MILE: 0.00

LATITUDE: 38.80750 **LONGITUDE:** -77.11194

Segment begins at the headwaters of Backlick Run, approximately 0.74 rivermiles upstream of Route 620, downstream to its confluence with Holmes Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient fecal coliform bacteria exceedances (8 of 22 samples - 36.4%) were recorded at DEQ's ambient water quality monitoring station 1ABAL001.40 at Van Dorn Street to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Alexandria, Fairfax

STREAM NAME: Holmes Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A13R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.59 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Mouth of Lake Barcroft

RIVER MILE: 3.59

LATITUDE: 38.84324 **LONGITUDE:** -77.14470

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Baclick Run

RIVER MILE: 0.00

LATITUDE: 38.80750 **LONGITUDE:** -77.11194

Segment begins at the mouth of Lake Barcroft on Holmes Run downstream to its confluence with Backlick Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004)

Sufficient fecal coliform bacteria exceedances were recorded at DEQ's water quality monitoring stations at Pickett Street off the Holmes Run Pkwy (1AH0R001.04; 2 of 6 samples - 33.3%) and Beauregard Street (1AHOR001.30; 3 of 16 samples - 18.8%) to assess this segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax

STREAM NAME: Holmes Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A13R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.8 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Holmes Run

RIVER MILE: 10.96

LATITUDE: 38.89696 **LONGITUDE:** -77.21888

DOWNSTREAM LIMIT:

DESCRIPTION: Start of Lake Barcroft

RIVER MILE: 5.16

LATITUDE: 38.84637 **LONGITUDE:** -77.16867

Segment begins at the headwaters of Holmes Run and continues downstream to the start of Lake Barcroft.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic) - (2004)

Biological monitoring at station 1AHOR005.48 upstream from Route 613 determined that the benthic community in the stream is moderately impaired. As a result, 5.8 stream miles were assessed as not supporting the Aquatic Life Use goal for the 2004 water quality assessment.

Biological monitoring data from citizen monitoring stations 1AHOR-CAM1-SOS and 1AHOR-CAM2-SOS find a high probability of adverse conditions for biota.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax

STREAM NAME: Tripps Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A13R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.25 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Tripps Run

RIVER MILE: 3.16

LATITUDE: 38.87927 **LONGITUDE:** -77.17868

DOWNSTREAM LIMIT:

DESCRIPTION: Start of Lake Barcroft

RIVER MILE: 0.91

LATITUDE: 38.85478 **LONGITUDE:** -77.15841

Segment begins at the headwaters of Tripps Run and continues downstream to the start of Lake Barcroft.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic) - (2004)

Biological monitoring at station 1ATRI001.88, upstream from Route 613 (Hollow Road), determined that the benthic community in the stream is moderately impaired. As a result, 2.25 stream miles were assessed as not supporting the Aquatic Life Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax

STREAM NAME: Little Hunting Creek

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A14E-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.24 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters

RIVER MILE: ~1.7

LATITUDE: 38.73111 **LONGITUDE:** -77.08139

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 38.71028 **LONGITUDE:** -77.07639

Segment includes all tidal waters of Little Hunting Creek, extending from approximately rivermile 1.7 downstream to the confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs (2002), Fecal Coliform (2004)

Data from the DEQ ambient monitoring station and fish tissue/sediment monitoring station (1ALIF000.19) at the George Washington Parkway revealed the following during the 2004 water quality assessment period:

1) Not supporting of the Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, fish tissue data revealed exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in one species in 1996 (shad) and five species in 2000 (largemouth bass, white perch, carp, channel catfish, american eel). The 1996 sampling was conducted at station 1ALIF000.01 and preceeds the data window for the 2004 assessment, but is pertinent historical information.

2) Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (6 of 39 samples - 15.4%) to assess this segment as not supporting of the Recreation Use goal.

3) The Aquatic Life Use goal was assessed as fully supporting with observed effects due to the following:

a. The ER-M sediment screening value for chlordane (6 ppb dry weight) was exceeded in sediment samples collected in 1996 and 2000. Again, The 1996 sampling event preceeds the data window for the 2004 assessment, but is pertinent historical information.

b. Three of 8 samples (37.5%) exceeded the chlorophyll a screening value of 50 ug/L.

Fact Sheets for Category 5 Waters

A TMDL to address the Fish Consumption Use impairment is to be completed by 2014. The TMDL for the bacteria impairment may extend to 2016.

IMPAIRMENT SOURCE: VDH Fish Consumption Advisory

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax

STREAM NAME: Pohick Bay

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A15E-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.24 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters in Pohick Creek

RIVER MILE: ~3.69

LATITUDE: 38.68833 **LONGITUDE:** -77.19333

DOWNSTREAM LIMIT:

DESCRIPTION: Rivermile 1.31

RIVER MILE: 1.31

LATITUDE: 38.67472 **LONGITUDE:** -77.15556

Segment includes the tidal waters of Pohick Creek and extends to rivermile 1.31 in Gunston Cove. Segment includes all of Pohick Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Wildlife Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Ammonia (2002), Ammonia (2002), Fish Tissue - PCBs (2002)

Data from the DEQ ambient monitoring station 1APOH002.32 and fish tissue/sediment monitoring station 1APOH000.32 (actual rivermile is approximately 2.3) in Pohick Bay revealed the following during the 2004 water quality assessment:

1) Not supporting of the Aquatic Life Use and Wildlife Use goals due to three exceedances of the acute ammonia criteria within a three-year period. Exceedances of the acute freshwater ammonia criteria were recorded in June, September, and December 1999;

2) Not supporting of Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, exceedance of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue was recorded in three species in 2000 (largemouth bass, carp, channel catfish).

3) The Aquatic Life Use goal was assessed as fully supporting with observed effects due to the following:
a. The ER-M sediment screening value for chlordane (6 ppb dry weight) was exceeded in sediment samples collected in 2000 at station 1APOH000.32.

b. Seven of 14 samples (50.0%) exceeded the chlorophyll a screening value of 50 ug/L at station 1APOH002.32.

IMPAIRMENT SOURCE: Unknown, Unknown, VDH Fish Consumption Advisory

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax

STREAM NAME: Accotink Creek

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A15R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.62 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Calamo Branch

RIVER MILE: 9.83

LATITUDE: 38.77167 **LONGITUDE:** -77.20333

DOWNSTREAM LIMIT:

DESCRIPTION: To end of free-flowing waters

RIVER MILE: ~1.57

LATITUDE: 38.69778 **LONGITUDE:** -77.16139

Segment begins at the confluence of Calamo Branch and Accotink Creek and extends downstream to the start of the tidal waters of Accotink Creek/Bay. The segment size has been reduced from the 1998 303(d) listing to include only the free-flowing waters of Accotink Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic) - (1996), Fecal Coliform (2004)

Biological monitoring at station 1AACO006.10 at the Route 790 bridge determined that the benthic community in the stream is moderately impaired. As a result, the segment was assessed as not supporting of the Aquatic Life Use goal for the 2004 water quality assessment. The benthic impairment for this segment was first identified in the 1996 303(d) list. The last DEQ biological survey in this stream segment was conducted in November 1996. While this preceeds the 2004 water quality assessment period, the impairment remains as no additional data to refute the findings are available. Citizen monitoring station 1AACO-ACC2B-SOS finds medium probability of adverse conditions for biota.

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (6 of 37 samples - 16.2%) were recorded at DEQ's ambient water quality monitoring station 1AACC006.10 at the Route 790 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

Fish tissue data from the DEQ fish tissue/sediment monitoring station 1AACC004.86 near Route 611 revealed an exceedance of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) and of the risk-based tissue screening value (TSI) of 10 ppb for heptachlor epoxide. Both of these exceedances were found in American Eel during the June 2001 sampling event. As a result, the Fish Consumption Use goal was assessed as fully supporting with an observed effect.

The TMDL for the Aquatic Life Use impairment is scheduled to be completed by 2010 in accordance with the consent decree schedule. The TMDL for the bacteria impairment may extend to 2016.

IMPAIRMENT SOURCE: Unknown, Unknown

Fact Sheets for Category 5 Waters

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax

STREAM NAME: Pohick Creek

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A16R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.2 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of South Run

RIVER MILE: 6.89

LATITUDE: 38.71750 **LONGITUDE:** -77.21722

DOWNSTREAM LIMIT:

DESCRIPTION: End of the free-flowing portion of Pohick Creek

RIVER MILE: ~3.69

LATITUDE: 38.68833 **LONGITUDE:** -77.19333

Segment begins at the confluence of South Run to Pohick Creek, approximately 0.25 rivermiles upstream of I-95, downstream to the end of the free-flowing portion of Pohick Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs, PAH (2002)

DEQ has monitored ambient water quality at stations 1APOH007.65 at Route 642 and 1APOH005.36 at the Route 1 bridge. Additionally, DEQ conducted fish tissue/sediment sampling at station 1APOH004.79 in 1996. This segment was listed in the 2002 303(d) report for not supporting the recreational use due to fecal coliform bacteria exceedances, and not supporting the fish consumption use due to PCB's and PAH's in fish tissue. For the 2004 assessment period, this segment was assessed as fully supporting of the Recreation Use goal with a fecal coliform bacteria exceedance rate of 7.1% (1 of 14 samples) at station 1APOH007.65 and 1 exceedance of 5 samples at station 1APOH005.36.

The fish consumption impairment is due to exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) and 15 ppb for benzo(k)fluoranthene in fish tissue. Exceedance of the TV for PCB's was recorded in two species (bullhead catfish, white perch) in 1996. Exceedance of the TV for benzo(k)fluoranthene was exceeded in three species (bullhead catfish, white perch, and sunfish). Additionally, chrysene exceeded the TV of 15 ppb in bullhead catfish, and benzo(b)fluoranthene exceeded the TV of 15 ppb in white perch in the 1996 fish tissue sampling. This impairment remains in effect even though the sampling event preceeds the 2004 water quality assessment window.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fauquier, Prince William

STREAM NAME: Cedar Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A17R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 28.23 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Mill Run to Cedar Run

RIVER MILE: 28.23

LATITUDE: 38.71056 **LONGITUDE:** -77.73500

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Occoquan River

RIVER MILE: 0.00

LATITUDE: 38.68778 **LONGITUDE:** -77.48972

Segment begins at the confluence of Mill Run to Cedar Run and continues downstream to the confluence with the Occoquan River. Segment extends from watershed A17R through A18R in Fauquier and Prince William Counties.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (1996)

The listing of this stream segment is based on data from the following DEQ monitoring stations: 1ACER0025.25 at Route 602; 1ACER016.46 at Route 806, 1ACER009.52 at Route 611, and 1ACER006.00 at Route 646. In addition, data from the USGS station 01656120 at Route 646 was included in the assessment. The monitoring data from these stations revealed the following during the 2004 water quality assessment period:

1) The entire 28.23-mile segment does not support the Recreation Use goal due to exceedances of the fecal coliform bacteria instantaneous criterion. Data from each of the monitoring stations are summarized below:
- 1ACER0025.25 - 7 of 17 samples (41.2%);
- 1ACER016.46 - 4 of 22 samples (18.2%);
- 1ACER009.52 - 4 of 11 samples (36.4%);
- 1ACER006.00 - 11 of 37 samples (29.7%).

2) The Aquatic Life Use goal was found to be fully supporting with observed effects as specified below.
a. The 21.43-mile segment beginning at the confluence of Turkey Run with Cedar Run downstream to the confluence of the Occoquan River/Lake Jackson due to exceedances of the total phosphorus screening level of 200 ug/L at stations 1ACER016.46 (3 of 21 samples - 14.3%), 1ACER009.52 (2 of 11 samples - 18.2%), and USGS station 0156120 (4 of 28 samples - 14.3%).

b. The 5.65-mile segment beginning at the confluence of Turkey Run with Cedar Run downstream to the confluence of Walnut Branch with Cedar Run where DEQ biological monitoring at station 1ACER016.46 determined the benthic community in this segment to be slightly impaired.

IMPAIRMENT SOURCE: Unknown

Fact Sheets for Category 5 Waters

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fauquier

STREAM NAME: Licking Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A17R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.58 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Below mouth of Germantown Lake

RIVER MILE: 6.58

LATITUDE: 38.61667 **LONGITUDE:** -77.72139

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Cedar Run

RIVER MILE: 0.00

LATITUDE: 38.63222 **LONGITUDE:** -77.64111

Segment begins at Route 602, below the mouth of Germantown Lake, downstream to its confluence with Cedar Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (1998)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (9 of 19 samples - 47.4%) were recorded at DEQ's ambient water quality monitoring station (1ALIL001.43) at the Route 616 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William, Manassas

STREAM NAME: Broad Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A19R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.26 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Rocky Branch

RIVER MILE: 11.91

LATITUDE: 38.75056 **LONGITUDE:** -77.57833

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Cannon Branch

RIVER MILE: 4.65

LATITUDE: 38.72000 **LONGITUDE:** -77.50639

Segment begins at the confluence of Rocky Branch to Broad Run and continues downstream to the confluence of Cannon Branch to Broad Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (4 of 19 samples - 21.1%) were recorded at DEQ's ambient water quality monitoring station (1ABRU007.58) at the Route 28 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fauquier, Prince William

STREAM NAME: Broad Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A19R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.51 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary to Broad Run

RIVER MILE: 21.43

LATITUDE: 38.78222 **LONGITUDE:** -77.68306

DOWNSTREAM LIMIT:

DESCRIPTION: Start of Lake Manassas

RIVER MILE: 19.92

LATITUDE: 38.77778 **LONGITUDE:** -77.66944

Segment begins at the confluence of an unnamed tributary to Broad Run, at rivermile 21.43, and continues downstream to the start of Lake Manassas.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (7 of 18 samples - 38.9%) were recorded at DEQ's ambient water quality monitoring station (1ABRU020.12) at the Route 29/211 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William

STREAM NAME: Kettle Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A19R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.59 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary to Kettle Run

RIVER MILE: 7.59

LATITUDE: 38.72389 **LONGITUDE:** -77.61028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Broad Run

RIVER MILE: 0.00

LATITUDE: 38.69611 **LONGITUDE:** -77.51056

Segment begins at the confluence of an unnamed tributary to Kettle Run, approximately 0.08 rivermile upstream of Route 708, downstream to its confluence with Broad Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (8 of 20 samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station (1AKET000.80) at the Route 619 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fauquier, Prince William

STREAM NAME: South Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A19R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.34 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Downstream of Lake Brittle

RIVER MILE: 2.34

LATITUDE: 38.74861 **LONGITUDE:** -77.69028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Lake Manassas (Broad Run)

RIVER MILE: 0.00

LATITUDE: 38.77167 **LONGITUDE:** -77.66389

Segment begins on South Run downstream of Lake Brittle, and continues downstream to its confluence to Lake Manassas (Broad Run).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic) - (1998), Fecal Coliform (2004)

This segment was included in Part I of the 1998 303(d) report for partially supporting the aquatic life use due to a moderate benthic impairment noted at the DEQ biological monitoring station 1ASOT001.44 at Route 215. Based on biological survey results from the 2002 and 2004 305(b) assessment periods, this stream segment was determined to be slightly impaired. While the benthic community integrity showed an improvement from the 1998 303(d) list, this was not sufficient to warrant removing this segment from the impaired waters list. Therefore, the stream segment remains impaired for the Aquatic Life Use goal.

The consensus based probable effects concentration (PEC) sediment screeing value for silver (2.6 ppm, dry weight, 99th percentile) was exceeded in a sediment sample collected in April, 1999, at the DEQ ambient water quality monitoring station (1ASOT001.44) at Route 215. As a result, the Aquatic Life Use goal is noted with an observed effect.

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (5 of 18 samples - 27.8%) were recorded at DEQ's ambient water quality monitoring station 1ASOT001.44 to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

Fish tissue data collected at station 1ASOT001.44 near Route 215 revealed an exceedance of the risk-based tissue screening value (TSI) of 0.072 parts per million (ppm) for arsenic. This exceedance was found in Redbreast Sunfish during the August 2001 sampling event. As a result, the Fish Consumption Use goal was assessed as fully supporting with an observed effect.

This segment was first listed for an Aquatic Life Use impairment in the 1998 303(d) report. A benthic TMDL is scheduled to be developed by 2010. The TMDL to address the Recreation Use impairment may extend to 2016.

IMPAIRMENT SOURCE: Unknown, Unknown

Fact Sheets for Category 5 Waters

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fauquier

STREAM NAME: Broad Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A19R-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.06 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Mill Run

RIVER MILE: 27.34

LATITUDE: 38.83773 **LONGITUDE:** -77.72579

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Trapp Run

RIVER MILE: 26.28

LATITUDE: 38.82570 **LONGITUDE:** -77.71998

Segment begins at the confluence of Mill Run and continues downstream to the confluence of Trapp Run with Broad Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 5 samples - 40.0%) were recorded at DEQ's ambient water quality monitoring station (1ABRU024.74) at the Route 628 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment. Note that the correct rivermile for the Route 628 sampling location is 26.4.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William

STREAM NAME: Occoquan River

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A20R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.61 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Downstream of Lake Jackson

RIVER MILE: 24.84

LATITUDE: 38.70522 **LONGITUDE:** -77.44735

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Purcell Branch

RIVER MILE: 23.23

LATITUDE: 38.70364 **LONGITUDE:** -77.42277

Segment begins downstream from the Lake Jackson impoundment and extends downstream to the confluence of Purcell Branch to the Occoquan River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (4 of 16 samples - 25.0%) were recorded at DEQ's ambient water quality monitoring station 1AOCC024.74 at the Route 234 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William

STREAM NAME: Little Bull Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A21R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.03 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Catharpin Creek

RIVER MILE:

LATITUDE: 31.81992 **LONGITUDE:** -77.58202

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Lick Branch

RIVER MILE:

LATITUDE: 38.84309 **LONGITUDE:** -77.55773

Segment begins at the confluence of Catharpin Creek to Little Bull Run, approximately 0.55 rivermiles upstream of Route 704, downstream to its confluence with Lick Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 17 samples - 11.8%) were recorded at DEQ's ambient water quality monitoring station 1ALII003.97 at the Route 705 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform bacteria exceedances is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax, Prince William

STREAM NAME: Bull Run

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A23R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.75 - Miles

INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Cub Run to Bull Run

RIVER MILE: 11.51

LATITUDE: 38.79639 **LONGITUDE:** -77.46611

DOWNSTREAM LIMIT:

DESCRIPTION: Rivermile 5.8

RIVER MILE: 5.8

LATITUDE: 38.76204 **LONGITUDE:** -77.41336

Segment begins at the confluence of Cub Run to Bull Run, at the start of watershed A23R, and continues downstream to rivermile 5.8, approximately 0.95 rivermiles downstream from the confluence of Popes Head Creek with Bull Run.

The segment was extended from the 2002 303(d) list to include the 0.95-mile stretch downstream from the confluence of Popes Head Creek. Additionally, this segment was included within a larger segment for the 1998 and 2000 assessments, and was listed in the 1998 303(d) report as partially supporting the aquatic life use based on a benthic impairment. The former segment began at confluence of Holkums Branch in waterbody A21R and extended to the Occoquan River (15.64 miles). The segment was shortened based on hydrology, considering significant tributaries upstream and downstream from the monitoring station at Route 28.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic) - 4.8 miles (1994), Fecal Coliform - 4.8 miles (2004), Fish Tissue - PCBs - 5.75 mile

The 4.8-mile segment beginning at the confluence of Cub Run with Bull Run downstream to its confluence with Popes Head Creek was assessed as not supporting the Aquatic Life Use goal and the Recreation Use goal for the 2004 water quality assessment. Biological monitoring at DEQ station 1ABUL010.28 located at Route 28 determined that the benthic community in the stream is moderately impaired. The exceedance rate of the instantaneous fecal coliform bacteria criterion was 11.8% (4 of 34 samples) at DEQ's ambient water quality monitoring station 1ABUL010.28.

The entire 5.75-mile segment is considered not supporting of the Fish Consumption Use goal for the 2004 water quality assessment. Fish tissue data from station 1ABUL010.28 revealed exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) and of the risk-based tissue screening value (TSI) of 10 ppb for heptachlor epoxide. Exceedances of the TV for PCBs were found in channel catfish and flathead catfish in the June 2001 sampling event. The exceedance of the heptachlor epoxide TSI was found in flathead catfish.

Fish tissue sampling at a downstream station on Bull Run, 1ABUL005.80, in October 1999 did not reveal the presence of PCB's in the fish species analyzed. However, PCB's exceeded the consensus based probability effects concentration (PEC) sediment screening value at station 1ABUL006.64 in 1997. While this sampling event preceeds the 2004 assessment window, it does indicate a possible source of PCB's and is the basis for extending the fish tissue impairment downstream below the confluence of Popes Head Creek with Bull Run.

Fact Sheets for Category 5 Waters

The Aquatic Life Use goal impairment was first listed in the 1994 303(d) report and is subject to the Consent Decree schedule. The Recreation Use and Fish Consumption Use impairments were first listed in the 2004 303(d) list. TMDL's to address these impairments may extend to 2016.

IMPAIRMENT SOURCE: Unknown, Unknown, Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax

STREAM NAME: Popes Head Creek

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A23R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.92 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Piney Branch to Popes Head Creek

RIVER MILE: 4.92

LATITUDE: 38.79667 **LONGITUDE:** -77.35556

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Bull Run

RIVER MILE: 0.00

LATITUDE: 38.77306 **LONGITUDE:** -77.41444

Segment begins at the confluence of Piney Branch to Popes Head Creek, approximately 0.25 rivermiles downstream of Route 660, downstream to its confluence to Bull Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic) - (1998), Fecal Coliform (2004)

Biological monitoring at station 1APOE002.00 located at Route 645 determined that the benthic community in the stream is moderately impaired. As a result, 4.92 stream miles were assessed as not supporting the Aquatic Life Use goal for the 2004 water quality assessment. In addition, citizen monitoring station 1aPOE-14-ANS, located in the Chapel Road Park, finds medium probability of adverse conditions for biota.

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 20 samples - 15.0%) were recorded at DEQ's ambient water quality monitoring station 1APOE002.00 to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

This segment was first listed for the Aquatic Life Use impairment as identified by biological monitoring in the 1998 303(d) report. A TMDL to address this impairment is scheduled to be completed by 2010. A TMDL to address the Recreation Use impairment may extend to 2016.

IMPAIRMENT SOURCE: Unknown, Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax, Prince William

STREAM NAME: Occoquan Reservoir

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A24L-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 1700 - Acres

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Start of inundated waters on Bull Run and Occoquan River

RIVER MILE: 20.14

LATITUDE: 38.69444 **LONGITUDE:** -77.27667

DOWNSTREAM LIMIT:

DESCRIPTION: Lower end of reservoir.

RIVER MILE: 7.14

LATITUDE: 38.71667 **LONGITUDE:** -77.40056

Segment includes all of the Occoquan Reservoir extending from rivermile 20.14 on the Occoquan River, and rivermile 5.18 on Bull Run, downstream to the dam located at rivermile 7.14 on the Occoquan River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen (2002)

The assessment for the Occoquan Reservoir is based on monitoring data collected by the Occoquan Watershed Monitoring Laboratory (OWML). Data were available for four monitoring stations during the 2004 water quality assessment period. Station RE02 is located 0.3 miles above the Occoquan dam. Station RE15 is located 6.1 miles above the dam. Station RE30 is located on the Bull Run arm of the reservoir at the Bull Run Marina 10.5 miles above the dam. Station RE35 is located on the Occoquan River arm of the reservoir at the Ravenwood Bridge 11.2 miles above the dam.

The data reveals that the Occoquan Reservoir fully supports the public water supply use, and is not impaired as a drinking water source. Excursions from the water quality criteria and screening values discussed below pertain to the aquatic life use of the reservoir, and not the public water supply use.

The assessment results are summarized as follows:

1) The aquatic life use is impaired due to low dissolved oxygen in the bottom waters of the reservoir. All four stations report excursions of the minimum dissolved oxygen criterion for Class III nontidal waters of 4.0 mg/L. Greater than 10% of samples exceed the criterion in both the surface and bottom waters at RE02, and in the bottom waters only at RE15, RE30 and RE35. It is believed that the aeration process performed by the county water authority near station RE02 is the cause of the low dissolved oxygen values observed in the surface waters.

A Trophic State Index (TSI) value was calculated for total phosphorus and secchi depth at all stations using surface data (0.3 m depth) collected during the summer months (June through September). Chlorophyll a TSI values were not calculated at any stations because the reservoir was treated with algaecide. The calculated TSI values are summarized below:

Station	Secchi, avg (m)	Secchi, TSI	TP, avg (ug/L)	TP TSI
RE02	1.40	55.19	36.22	55.94

RE15	1.07	58.98	49.76	60.52
RE30	0.67	65.83	67.93	65.01
RE35	0.64	66.43	81.10	67.57

2) The aquatic life use has an observed effect due to exceedances of the total phosphorus threshold screening value of 50 ug/L for freshwater lakes. The screening value is exceeded in greater than 10% of samples in both the surface and bottom waters at all stations.

IMPAIRMENT SOURCE: Natural/Stratification

Bottom dissolved oxygen depletion occurs naturally in reservoirs due to stratification. Excursions from the DO criterion in the surface layer at RE02, near the dam, are thought to occur as a result of mixing of the water column that occurs near the dam.

Total phosphorus excursions in the reservoir are believed due to ongoing agricultural and development activities in the watershed, as well as to historical nutrient inputs that occurred before the Occoquan Policy was implemented and that have led to accumulations of phosphorus in the sediments of the reservoir.

The Occoquan Reservoir was identified in Attachment B of the June 1999 Consent Decree (with no specific pollutant identified). The basis of the listing in the consent decree is believed to be due to the trophic assessment of the reservoir. Virginia water quality standards do not establish nutrient criteria. Dissolved oxygen is thought to represent the same processes that lead to the conclusion that the reservoir is highly eutrophic. Therefore, the demonstration that the dissolved oxygen is due to natural occurrences must be conducted in accordance with the schedule established in the consent decree, or by 2010.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax, Prince William

STREAM NAME: Occoquan Bay

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A25E-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.69 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE: 2.97

LATITUDE: 38.64750 **LONGITUDE:** -77.22000

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE: 1.97

LATITUDE: 38.63306 **LONGITUDE:** -77.22250

Segment is defined by a half-mile radius around DEQ monitoring station 1AOCC002.47 located in the center of the bay, northeast from Sandy Point.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: pH (2002), Fish Tissue - PCBs (2002)

The DEQ maintains an ambient water quality and fish tissue/sediment monitoring station (1AOCC002.47) at the centerline of Occoquan/Belmont Bay, northeast of Sandy Point. The monitoring data from this station revealed the following during the 2004 water quality assessment period:

1) Not supporting of the Aquatic Life Use goal due to sufficient exceedances of the pH water quality criteria. Eight (8) of 27 samples (29.6%) exceeded the upper range (9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards;

2) Not supporting of the Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, fish tissue data revealed exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in two species in 1996 (white perch and sunfish) and 5 species in 2001 (striped bass, largemouth bass, carp, white perch and channel catfish). While the 1996 sampling event preceeds the assessment window, it is relevant historical information.

In addition, the Aquatic Life Use has an observed effect due to exceedances of the chlorophyll a screening level of 50 ug/L. Five (5) of 13 samples (38.5%) exceeded the chlorophyll a screening level.

The Aquatic Life Use impairment due to pH is subject to the Consent Decree schedule for TMDL development. The Fish Consumption Use impairment was first listed in the 2002 303(d) report. The TMDL to address this impairment may extend to 2014.

Fact Sheets for Category 5 Waters

IMPAIRMENT SOURCE: Unknown, VDH Fish Consumption Advisory

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William

STREAM NAME: Neabsco Bay

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A25E-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.57 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upper limit of Neabsco Bay

RIVER MILE: ~2.5

LATITUDE: 38.60833 **LONGITUDE:** -77.26667

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Occoquan Bay

RIVER MILE: 0.00

LATITUDE: 38.59833 **LONGITUDE:** -77.23722

Segment includes the tidal waters of Neabsco Bay downstream to the confluence with the Occoquan Bay. This segment was expanded from the 2002 cycle to include all of Neabsco Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: pH (2002), Fish Tissue - PCBs (2002), Fecal Coliform (2004)

The listing of this stream segment is based on data from the following DEQ monitoring stations: DEQ ambient and fish tissue/sediment station 1ANEA000.57 in Neabsco Creek and fish tissue/sediment station 1ANEA000.51 (sampled in 1996). Monitoring data from these stations revealed the following during the 2004 water quality assessment period:

1) Not supporting of the Aquatic Life Use goal due to sufficient exceedances of the pH water quality criteria recorded at station 1ANEA000.57. Seven of 29 samples (24.1%) exceeded the upper range (9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards;

2) Not supporting of Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

Within this segment, fish tissue data revealed exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in two species in 1996 (largemouth bass, carp) and five species in 2000 (largemouth bass, carp, channel catfish, white catfish, american eel). While the 1996 sampling event preceeds the assessment window, it is relevant historical information.

3) Not supporting of the Recreation Use goal due to sufficient exceedances of the instantaneous fecal coliform bacteria criterion (8 of 38 samples - 21.1%) recorded at station 1ANEA000.57.

In addition, the Aquatic Life Use goal has an observed effect due to exceedances of the chlorophyll a screening level of 50 ug/L. Ten (10) of 15 samples (66.7%) exceeded the chlorophyll a screening level.

Fact Sheets for Category 5 Waters

The Aquatic Life Use impairment due to pH is subject to the Consent Decree schedule for TMDL development. The Fish Consumption Use impairment was first listed in the 2002 303(d) report. The TMDL to address this impairment may extend to 2014. The Recreation Use impairment is newly listed in 2004. The TMDL to address this impairment may extend to 2016.

IMPAIRMENT SOURCE: Unknown, VDH Fish Consumption Advisory, Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax, Prince William

STREAM NAME: Occoquan River

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A25E-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.05 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE: 7.21

LATITUDE: 38.68938 **LONGITUDE:** -77.26837

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE: 6.21

LATITUDE: 38.68264 **LONGITUDE:** -77.25660

Segment is defined by a half-mile radius around DEQ monitoring station 1AOCC006.71 located at the Route 123 bridge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004), Fish Tissue - PCBs (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (4 of 19 samples - 21.1%) were recorded at DEQ's ambient water quality monitoring station 1AOCC006.71 at the Route 123 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

In addition, this segment is nested within the 20.3 square mile area (approximately) covered by a Virginia Department of Health (VDH) fish consumption advisory. The VDH fish consumption advisory for the Potomac River and VA tidal waters extends from Woodrow Wilson Bridge downstream (~33 miles) to Brent Point at mouth of Aquia Creek. Advise limited consumption of channel catfish due to PCB's. As a result, the Fish Consumption Use goal was assessed as not supporting for the 2004 water quality assessment.

A TMDL to address the Fish Consumption Use impairment is to be completed by 2014. A TMDL to address the Recreation Use impairment may extend to 2016.

IMPAIRMENT SOURCE: Unknown, VDH Fish Consumption Advisory

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William

STREAM NAME: Neabsco Creek

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A25R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.8 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 11.30

LATITUDE: 38.65444 **LONGITUDE:** -77.37111

DOWNSTREAM LIMIT:

DESCRIPTION: Start of the tidal waters of Neabsco Creek

RIVER MILE: ~2.5

LATITUDE: 38.61000 **LONGITUDE:** -77.28417

Segment begins at the confluence of an unnamed tributary to Neabsco Creek near Dale City (approximately 0.4 rivermiles downstream from Rt. 784) downstream to the start of the tidal waters of Neabsco Creek/Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (7 of 23 samples - 30.4%) were recorded at DEQ's ambient water quality monitoring station (1ANEA002.89) at the Route 1 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

Citizen monitoring station 1ANEA-N1-SOS finds a high probability of adverse conditions for biota.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Fairfax, Prince William

STREAM NAME: Mills Branch

HYDROLOGIC UNIT: 02070010

TMDL ID: VAN-A25R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.81 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Mills Branch

RIVER MILE: 1.81

LATITUDE: 38.70139 **LONGITUDE:** -77.24944

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Occoquan River

RIVER MILE: 0.00

LATITUDE: 38.67972 **LONGITUDE:** -77.25306

Segment includes all of Mills Branch from the headwaters downstream to the confluence with the Occoquan River. Mills Branch is an unnamed tributary on the Occoquan/Ft. Belvoir quads. It is channeled, flowing under the Fairfax County I-95 Landfill in Lorton, VA.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (4 of 17 samples - 23.5%) were recorded at DEQ's ambient water quality monitoring station 1AWLB000.06 in the Occoquan Regional Park to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

In addition, the Aquatic Life Use goal was assessed as fully supporting with observed effects due to exceedances of the total phosphorus screening value (200 ug/L). Four (4) of 17 samples (23.5%) exceeded the screening value at station 1AWLB000.06.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William, Stafford

STREAM NAME: Chopawamsic Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A26E-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.76 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of the Embayment

RIVER MILE: ~2.05

LATITUDE: 38.51404 **LONGITUDE:** -77.33481

DOWNSTREAM LIMIT:

DESCRIPTION: State line at the confluence with the Potomac River

RIVER MILE: 0.00

LATITUDE: 38.49736 **LONGITUDE:** -77.30734

Segment includes all of the Chopawamsic Creek embayment downstream to the state line at the confluence with the Potomac River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs (2002)

This segment is nested within the 20.3 square mile area (approximately) covered by a Virginia Department of Health (VDH) fish consumption advisory. The VDH fish consumption advisory for the Potomac River and VA tidal waters extends from Woodrow Wilson Bridge downstream (~33 miles) to Brent Point at mouth of Aquia Creek. Advise limited consumption of channel catfish due to PCB's.

Within this segment, exceedance of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue was recorded in four species of fish samples collected in 2001 at monitoring station 1ACHO000.90 (largemouth bass, yellow perch, channel catfish, and carp). As a result, the Fish Consumption Use goal was assessed as not supporting for the 2004 water quality assessment.

IMPAIRMENT SOURCE: VDH Fish Consumption Advisory

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William, Stafford

STREAM NAME: Chopawamsic Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A26E-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.1 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters

RIVER MILE: ~4.15

LATITUDE: 38.51914 **LONGITUDE:** -77.36770

DOWNSTREAM LIMIT:

DESCRIPTION: Rivermile 3.15

RIVER MILE: 3.15

LATITUDE: 38.51652 **LONGITUDE:** -77.35576

Segment extends from approximately a half rivermile upstream (to the upstream extent of the tidal waters) to a half rivermile downstream of monitoring station 1aCHO003.65.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: pH (2002), Fish Tissue - PCBs (2002), Fecal Coliform (2004)

The listing of this stream segment is based on data from the DEQ's ambient water quality monitoring station (1ACHO003.65) at the Route 1 bridge. Monitoring data from this station revealed the following during the 2004 water quality assessment period:

1) Not supporting of the Aquatic Life Use goal due to sufficient exceedances of the pH water quality criteria. Seven (7)of 29 samples (24.1%) were below the lower range (6.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

2) Not supporting of the Fish Consumption Use goal due to a Health Advisory issued by the Virginia Department of Health (VDH) for PCB's in fish tissue. This segment is nested within the 20.3 square mile area (approximately) covered by the VDH fish consumption advisory. See the fact sheet for the Virginia tidal waters from the Woodrow Wilson Bridge to Brent Point at the mouth of Aquia Creek for discussion of the Health Advisory issued by VDH.

3) Not supporting of the Recreation Use goal due to exceedances of the instantaneous fecal coliform bacteria criterion (4 of 36 samples - 11.1%).

TMDL's to address the Aquatic Life Use and Fish Consumption Use are to be developed by 2014. The Recreation Use goal impairment was added in 2004. The TMDL to address this impairment may extend to 2016.

IMPAIRMENT SOURCE: Unknown, VDH Fish Consumption Advisory, Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William, Stafford

STREAM NAME: Chopawamsic Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A26R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.76 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 4.91

LATITUDE: 38.52625 **LONGITUDE:** -77.37635

DOWNSTREAM LIMIT:

DESCRIPTION: Start of tidal waters of Chopawamsic Creek

RIVER MILE: ~4.15

LATITUDE: 38.51914 **LONGITUDE:** -77.36770

Segment begins at the confluence of an unnamed tributary to Chopawamsic Creek, approximately 0.3 rivermiles upstream from I-95, and continues to the end of the free flowing waters of Chopawamsic Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH (2002)

Sufficient excursions from the pH water quality criteria were recorded at the USGS monitoring station (01660110) at Interstate 95 to assess this segment as not supporting of the Aquatic Life Use goal in the 2004 water quality assessment. Ten (10) of 51 samples (19.6%) were below the lower range of the pH water quality criteria (6.0 - 9.0 SU) for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

IMPAIRMENT SOURCE: Unknown

The source of impairments is unknown, but may be due to natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William

STREAM NAME: Powells Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A26R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.02 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Approximately 0.2 rivermiles below Lake Montclair

RIVER MILE: 7.20

LATITUDE: 38.61056 **LONGITUDE:** -77.33972

DOWNSTREAM LIMIT:

DESCRIPTION: End of the free flowing waters

RIVER MILE: ~2.18

LATITUDE: 38.58972 **LONGITUDE:** -77.28389

Segment begins approximately 0.2 rivermiles below Lake Montclair and continues downstream to the end of the free flowing waters of Powells Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002), Fish Tissue - PCBs, PAH (2002)

The listing of this stream segment is based on data from the DEQ's ambient water quality monitoring and fish tissue/sediment monitoring station 1APOW003.11 at the Route 1 bridge. Note that fish tissue sampling was conducted in 1996. Monitoring data from this station revealed the following during the 2004 water quality assessment period:

1) Not supporting of the Recreation Use goal due to exceedances of the instantaneous fecal coliform bacteria criterion (2 of 15 samples - 13.3%);

2) Not supporting of the Fish Consumption Use goal due to exceedances of the water quality standard criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) and 15 ppb for benzo(k)fluoranthene in fish tissue. Exceedance of the TV for PCB's was recorded in three fish species in 1996 (largemouth bass, bullhead catfish and sunfish). Exceedance of the TV for benzo(k)fluoranthene was exceeded in two species (largemouth bass and sunfish). Although the fish tissue sampling occurred prior to the assessment window for the 2004 water quality assessment, the impairment remains because of the 1996 fish tissue data.

IMPAIRMENT SOURCE: Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William

STREAM NAME: Quantico Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A26R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.8 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of South Fork to Quantico Creek

RIVER MILE: 5.61

LATITUDE: 38.57194 **LONGITUDE:** -77.34750

DOWNSTREAM LIMIT:

DESCRIPTION: End of the free flowing waters

RIVER MILE: ~3.81

LATITUDE: 38.56500 **LONGITUDE:** -77.32000

Segment begins at the confluence of South Fork to Quantico Creek, approximately 0.75 rivermiles upstream of I-95, and continues downstream to end of the free-flowing waters of Quantico Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs (2002), Fecal Coliform (2004)

The listing of this stream segment is based on data from the DEQ's ambient water quality monitoring station 1AQUA004.46 at the Route 1 (Business) bridge. Note that fish tissue sampling was conducted in 1996 at this location. Monitoring data from this station revealed the following during the 2004 water quality assessment period:

1) Not supporting of the Fish Consumption Use goal due to exceedances of the water quality standard criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in two fish species in 1996 (Largemouth Bass and Bullhead Catfish). Although the fish tissue sampling occurred prior to the assessment window for the 2004 water quality assessment, the impairment remains because of the 1996 fish tissue data.

2) Not supporting of the Recreation Use goal due to exceedances of the instantaneous fecal coliform bacteria criterion (8 of 39 samples - 20.5%).

In addition, the Aquatic Life Use goal was assessed as fully supporting with an observed effect due to an exceedance of the consensus based probable effects concentration (PEC) sediment screeing value for copper (149 ppm, dry weight) in a sediment sample collected in May, 1999.

A TMDL to address the Fish Consumption Use impairment shall be developed by 2014. A TMDL to address the Recreation Use impairment may extend to 2016.

IMPAIRMENT SOURCE: Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William, Stafford

STREAM NAME: North Branch Chopawamsic Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A26R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.9 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of North Branch Chopawamsic Creek

RIVER MILE: 15.8

LATITUDE: 38.57800 **LONGITUDE:** -77.49880

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Middle Branch with North Branch

RIVER MILE: 8.9

LATITUDE: 38.55810 **LONGITUDE:** -77.41797

Segment begins at the headwaters of North Branch Chopawamsic Creek downstream to the confluence of Middle Branch to North Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: e Coli (2004)

Sufficient exceedances of the instantaneous e coli bacteria criterion (2 of 8 samples) were recorded at the USGS station 01659000 to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Prince William

STREAM NAME: South Fork Quantico Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A26R-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.64 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of South Fork Quantico Creek

RIVER MILE: 10.15

LATITUDE: 38.61889 **LONGITUDE:** -77.46072

DOWNSTREAM LIMIT:

DESCRIPTION: Start of the impounded waters at what is labelled as Mawavi Camp No 2

RIVER MILE: 5.51

LATITUDE: 38.58162 **LONGITUDE:** -77.41238

Segment starts at the headwaters of South Fork Quantico Creek and continues downstream to the start of the impounded waters adjacent to what is labelled as Mawavi Camp No 2 on the USGS Joplin quadrangle map.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: e Coli (2004)

Sufficient exceedances of the instantaneous e coli bacteria criterion (5 of 47 samples - 10.6%) were recorded at the USGS station 01658500 to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Stafford

STREAM NAME: Aquia Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A27R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.59 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Cannon Creek

RIVER MILE: 19.79

LATITUDE: 38.48718 **LONGITUDE:** -77.48505

DOWNSTREAM LIMIT:

DESCRIPTION: Smith Lake (Aquia Reservoir)

RIVER MILE: 13.20

LATITUDE: 38.49025 **LONGITUDE:** -77.41530

Segment begins at the confluence of Cannon Creek to Aquia Creek, approximately 0.1 rivermiles downstream of Route 610, downstream to Smith Lake (Aquia Reservoir).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 15 samples - 13.3%) were recorded at DEQ's ambient water quality monitoring station 1AAUA014.51 at the Route 641 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

In addition, iron and manganese samples collected March 29, 1999, exceeded the water quality taste and odor water quality criteria in one of one sample. As a result, the Public Water Supply use was assessed as fully supporting with observed effects.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Stafford

STREAM NAME: Aquia Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A28E-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 0.53 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Rivermile 4.28

RIVER MILE: 4.28

LATITUDE: 38.43138 **LONGITUDE:** -77.35731

DOWNSTREAM LIMIT:

DESCRIPTION: Rivermile 3.28

RIVER MILE: 3.28

LATITUDE: 38.41833 **LONGITUDE:** -77.34841

Segment extends from rivermile 4.28 to rivermile 3.28 in Aquia Creek encompassing a 0.5-mile radius around station 1AAUA003.71.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Wildlife Use - Not Supporting

IMPAIRMENT CAUSE: Chloride (2004), Chloride (2004)

The listing of this segment is based on data from the DEQ's ambient water quality and fish tissue/sediment monitoring station 1AAUA003.71 near the railroad bridge crossing. Monitoring data from this station revealed the following during the 2004 water quality assessment period:

1) More than two exceedances of the acute chloride criterion were recorded within a three-year period resulting in an assessment of not supporting the Aquatic Life Use and the Wildlife Use goals. This segment is considered transition zone tidal waters. The Water Quality Standards stipulate that the more stringent of either the freshwater or saltwater criteria apply. Therefore, these waters are listed as impaired. However, a TMDL is not necessary as the chloride levels are attributable to the natural estuarine conditions.

2) The Aquatic Life Use goal has observed effects for the following:

a. The NOAA Effects Range-Median concentration sediment screening value for mercury (0.71 ppm, dry weight) was exceeded in a sediment sample collected in August 2001;

b. Three of 12 samples (25.0%) exceeded the chlorophyll a screening level of 50.0 ug/L.

3) The Fish Consumption Use goal was assessed as fully supporting with an observed effect due to an exceedance of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in one species (carp) during the August 2001 sampling event.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions

The source of the chloride exceedances is natural conditions

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Stafford

STREAM NAME: Austin Run

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A28R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.81 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary

RIVER MILE: 0.81

LATITUDE: 38.44885 **LONGITUDE:** -77.39466

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Aquia Creek.

RIVER MILE: 0.00

LATITUDE: 38.44752 **LONGITUDE:** -77.38334

Segment begins at the confluence of an unnamed tributary to Austin Run (streamcode XGQ) and continues downstream to the confluence with Aquia Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 6 samples - 33.3%) were recorded at DEQ's ambient water quality monitoring station 1AAUS000.17 at the end of Aquia Drive to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George, Stafford

STREAM NAME: Potomac Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A29E-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.1 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of the tidal waters

RIVER MILE: ~4.7

LATITUDE: 38.35235 **LONGITUDE:** -77.36665

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Potomac River at the state line

RIVER MILE: 0.00

LATITUDE: 38.34743 **LONGITUDE:** -77.28671

Segment includes all tidal waters of Potomac Creek, beginning at the upstream limit of the tidal waters and continuing downstream to the confluence with the Potomac River at the state line.

The fish consumption impairment for Potomac Creek was expanded from the 2002 assessment to include all tidal waters of Potomac Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting, Aquatic Life Use - Not Supporting, Wildlife Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs, 3.1 sq. miles (2002), pH, Chloride - 0.59 sq. miles (2002 & 2004), Chloride - 0.59 sq. miles

The listing of this segment is based on data from the following DEQ monitoring stations: fish tissue/sediment station 1APOM001.04 sampled in 2000; ambient water quality monitoring station 1APOM002.41 off of Old Landing Point. The monitoring data from these stations revealed the following during the 2004 water quality assessment period:

1) The entire 3.1 square mile segment (approximately) does not support the Fish Consumption Use goal due to exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue. Exceedances of the TV were recorded in four species in samples collected May 22, 2000 (largemouth bass, carp, channel catfish and american eel). In addition, the risk-based tissue screening value (TSI) for arsenic (72 ppb) was exceeded in one species (american eel), and lead was detected in one species (channel catfish) in fish tissue samples collected May 2000.

2) In addition to the Fish Consumption Use impairment noted above, the 0.59 square mile segment extending to a half-mile radius around monitoring station 1APOM002.41 was assessed as follows:

a. Sufficient excursions from the pH water quality criteria were recorded at monitoring station 1APOM002.41 to assess this segment as not supporting of the Aquatic Life Use goal. Three of 26 samples (11.5%) exceeded the upper range (9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

b. More than two exceedances of the acute chloride criterion were recorded at station 1APOM002.41 within a three-year period resulting in an assessment of not supporting the Aquatic Life Use and the Wildlife Use goals. These are considered transition zone tidal waters. The Water Quality Standards stipulate that the more stringent of either the freshwater or saltwater criteria apply. Therefore, these waters are listed as impaired. However, a TMDL is not necessary as the chloride levels are attributable to the natural estuarine conditions.

c. The Aquatic Life Use goal has observed effects due to exceedances of the chlorophyll a screening value (2 of 12 samples -16.7%).

IMPAIRMENT SOURCE: Unknown, Unknown, Natural Conditions, Natural Conditions

The source of the chloride exceedances is natural conditions. The source of the other impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Stafford

STREAM NAME: Curtis Lake

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A29L-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 91 - Acres

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Start of Curtis Lake

RIVER MILE: 8.55

LATITUDE: 38.43861 **LONGITUDE:** -77.57000

DOWNSTREAM LIMIT:

DESCRIPTION: End of Curtis Lake

RIVER MILE: 7.80

LATITUDE: 38.43361 **LONGITUDE:** -77.55917

Segment includes all of Curtis Lake on Long Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH (2002)

Sufficient excursions from the pH water quality criteria were recorded at DEQ's ambient monitoring station (1ALOM007.93) on Curtis Lake to assess this segment as not supporting of the Aquatic Life Use goal in the 2002 305(b) report. Two of 10 samples (20%) were above the upper range (9.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards. No additional data have been collected from this segment since the 2002 water quality assessment.

In addition, the chlorophyll a screening value of 50 ug/L was exceeded in 5 of 7 samples (71.4%) resulting in an observed effect for the Aquatic Life Use goal.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Stafford

STREAM NAME: Accokeek Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A29R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.2 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary to Accokeek Creek

RIVER MILE: 8.62

LATITUDE: 38.39639 **LONGITUDE:** -77.40611

DOWNSTREAM LIMIT:

DESCRIPTION: End of the free flowing waters

RIVER MILE: ~4.42

LATITUDE: 38.37417 **LONGITUDE:** -77.35472

Segment begins at the confluence of an unnamed tributary to Accokeek Creek, approximately 0.33 rivermiles downstream from Route 1 at rivermile 8.62, and continues downstream to the end of the free-flowing waters.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2002), pH (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (3 of 18 samples - 16.7%) were recorded at DEQ's ambient water quality monitoring station (1AACC006.13) at Route 608 to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

In addition, sufficient excursions from the pH water quality criteria were recorded at monitoring station 1AACC006.13 to assess this segment as not supporting of the Aquatic Life Use goal. Two (2) of 16 samples (12.5%) were below the lower range (6.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

IMPAIRMENT SOURCE: Unknown, Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Stafford

STREAM NAME: Potomac Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A29R-02

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 2.23 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Railroad crossing at the west end of swamp

RIVER MILE: 7.53

LATITUDE: 38.35667 **LONGITUDE:** -77.40611

DOWNSTREAM LIMIT:

DESCRIPTION: To the east end of swamp

RIVER MILE: 5.30

LATITUDE: 38.34861 **LONGITUDE:** -77.37111

Segment begins upstream from Route 608 at the railroad crossing at the west end of swamp and continues downstream to the east end of swamp.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen (2002), pH (2004), Fecal Coliform (2004)

Sufficient excursions from the dissolved oxygen (DO) water quality criteria were recorded at DEQ's ambient monitoring station (1APOM006.72) at Route 608 to assess this segment as not supporting of the Aquatic Life Use goal in the 2004 water quality assessment. Three of 18 samples (16.7%) were below the minimum DO level (4.0 mg/L) for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

Sufficient excursions from the pH water quality criteria were also recorded at monitoring station 1APOM006.72 to assess this segment as not supporting of the Aquatic Life Use goal. Three (3) of 16 samples (18.8%) were below the lower range (6.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

Additionally, sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 18 samples - 11.1%) were recorded at station 1APOM006.72 to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

The DO impairment was first recorded in the 2002 303(d) list. A TMDL to address this impairment is due by 2014. The pH and bacteria impairments are newly added in the 2004 integrated assessment. TMDL's to address theses impairments may extend to 2016.

IMPAIRMENT SOURCE: Natural Conditions (unconfirmed), Unknown

The source of impairments is unknown, but is believed to be attributable to natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George

STREAM NAME: Gambo Creek/Upper Machodoc Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A30E-01

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.19 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE: **LONGITUDE:**

The boundaries of the condemned area are described in VDH Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, Section A, effective November 1, 2002.

The segment size was reduced from 0.32 square miles in the 2002 303(d) listing to 0.19 square miles to reflect the change in condemnation from the year 2000 to 2002.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: Bacteria

Based on the shellfish condemnation dated November 1, 2002, as reported by the Virginia Department of Health, Division of Shellfish Sanitation, 0.19 square miles of this waterbody were assessed as not supporting the Shellfishing Use goal in the 2004 water quality assessment.

IMPAIRMENT SOURCE: VDH Shellfish Condemnation

VDH Shellfish Condemnation

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George

STREAM NAME: Upper Machodoc Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A30E-02

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.03 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE: **LONGITUDE:**

The boundaries of the condemned area are described in VDH Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, Section B, effective November 1, 2002.

Historical Note: For the 2002 303(d) list, this segment was included in the condemnation notice covering Upper Machodoc and Gambo Creek and the Potomac River as delineated in Section A of the Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, effective May 8, 2000.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: Bacteria

Based on the shellfish condemnation dated November 1, 2002, as reported by the Virginia Department of Health, Division of Shellfish Sanitation, 0.03 square miles of this waterbody were assessed as not supporting the Shellfishing Use goal in the 2004 water quality assessment.

IMPAIRMENT SOURCE: VDH Shellfish Condemnation

VDH Shellfish Condemnation

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George

STREAM NAME: Upper Machodoc Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A30E-03

ASSESSMENT CATEGORY: 5A/5B

SEGMENT SIZE: 0.82 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters

RIVER MILE: ~8.9

LATITUDE: 38.30896 **LONGITUDE:** -77.08802

DOWNSTREAM LIMIT:

DESCRIPTION: The open embayment waters of Upper Machodoc Creek

RIVER MILE: 1.87

LATITUDE: 38.31633 **LONGITUDE:** -77.06184

The upstream boundary is described in the VDH Notice and Description of Shellfish Area Condemnation No. 36, Upper Machodoc Creek, Section D, effective November 1, 2002. Upstream boundary ends with tidal waters. The segment continues downstream to the open embayment waters of Upper Machodoc Creek at the point downstream from Wood Island.

Historical Note: The 2002 303(d) listing of this segment was based on the boundaries of the condemned area as described in VDH Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, Section F, effective May 8, 2000. The segment size was expanded from 0.36 square miles.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting, Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: pH, 0.36 sq. miles (2002), Fish Tissue - PCBs, 0.82 sq. miles (2004), Bacteria, 0.36 sq. mi. (1998)

The entire 0.82 square mile segment was assessed as not supporting the Fish Consumption Use goal due to exceedances of the water quality criterion based tissue value (TV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue. Exceedances of the TV were recorded in two species of fish samples collected in September 2001 (gizzard shad and channel catfish) at the DEQ fish tissue/sediment station 1AUMC004.43 near the Route 218 bridge.

The 0.36 square mile segment described in the VDH Notice and Description of Shellfish Area Condemnation No. 36, Upper Machodoc Creek, Section D, effective November 1, 2002, was found not to support the Shellfishing Use and Aquatic Life Use goal as described below:

1) Sufficient excursions from the pH water quality criteria were recorded at DEQ's ambient monitoring station 1AUMC004.43 at Route 218 to assess this 0.36 square mile segment as not supporting of the Aquatic Life Use goal. Two of 17 samples (11.8%) were below the lower range (6.0 - 9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

Additionally, the NOAA Effects Range-Median concentration sediment screeing value for mercury (0.71 ppm, dry weight) was exceeded in a sediment sample collected in September 2001. This results in an observed effect for the assessment of the Aquatic Life Use goal.

2) Based on the shellfish condemnation dated November 1, 2002, as reported by the Virginia Department of Health, Division of Shellfish Sanitation, 0.36 square miles of this waterbody were assessed as not supporting the Shellfishing Use goal in the 2004 water quality

assessment.

A TMDL to address the Shellfishing impairment is due by 2010 in accordance with the consent decree schedule. A TMDL to address the Aquatic Life Use and Fish Consumption Use impairments may extend to 2014 and 2016, respectively.

IMPAIRMENT SOURCE: Unknown, Unknown, VDH Shellfish Condemnation

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George

STREAM NAME: Williams Creek/ Upper Machodoc Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A30E-04

ASSESSMENT CATEGORY: 5A/5B

SEGMENT SIZE: 0.23 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream limit of tidal waters

RIVER MILE: ~1.9

LATITUDE: 38.34633 **LONGITUDE:** -77.06011

DOWNSTREAM LIMIT:

DESCRIPTION: Upper Machodoc Creek

RIVER MILE: 0.00

LATITUDE: 38.32071 **LONGITUDE:** -77.05175

The boundaries of the condemned area are described in VDH Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, Sections C and F, effective November 1, 2002.

Historical Note: The 2002 303(d) listing of this segment was based on the boundaries of the condemned area as described in VDH Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, Sections C and D, effective May 12, 1998, and are shown on the accompanying map.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: DO, 0.23 sq. miles (2002), pH, 0.23 sq. miles (2004), Bacteria, 0.20 sq. mi. (1998)

The entire 0.23 square mile segment was assessed as not supporting the Aquatic Life Use goal in the 2004 water quality assessment due to the following:

1) Excursions from the dissolved oxygen (DO) water quality criteria recorded at DEQ's ambient monitoring station (1AWLL001.30) at Route 206. Two of 16 samples (12.5%) were below the minimum DO level (4.0 mg/L) for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

2) Excursions from the pH water quality criteria recorded at station 1AWLL001.30. Two of 14 samples (14.3%) were below the lower range (6.0 - 9.0 SU) of the pH water quality criteria for Class II waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

In addition, the Aquatic Life Use was found to have observed effects for exceedances of the total phosphorus screening value of 0.20 mg/L (2 of 16 samples - 12.5%), and an exceedance of the NOAA Effects Range-Median concentration sediment screeing value for mercury (0.71 ppm, dry weight) in a sediment sample collected in September 2001.

The 0.20 square mile segment as described the VDH Notice and Description of Shellfish Area Condemnation Number 36, Upper Machodoc Creek, Section C, effective November 1, 2002, was assessed as not supporting the Shellfishing Use goal in the 2004 water quality assessment.

A TMDL to address the Shellfishing impairment is due by 2010 in accordance with the consent decree. A TMDL to address the Aquatic Life

Fact Sheets for Category 5 Waters

Use impairments for DO and pH may extend to 2014 and 2016, respectively.

IMPAIRMENT SOURCE: Unknown, VDH Shellfish Condemnation

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George

STREAM NAME: Williams Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A30R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.93 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary to Williams Creek

RIVER MILE: 2.85

LATITUDE: 38.35250 **LONGITUDE:** -77.07222

DOWNSTREAM LIMIT:

DESCRIPTION: End of free-flowing waters

RIVER MILE: ~1.92

LATITUDE: 38.34633 **LONGITUDE:** -77.06011

Segment begins at confluence of an unnamed tributary to Williams Creek, approximately 0.1 rivermiles downstream of Route 624, and continues downstream to the end of the free-flowing portion of Williams Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen (2002), pH (2004)

Sufficient excursions from the dissolved oxygen (DO) water quality criteria were recorded at DEQ's ambient monitoring station 1AWLL002.21 at Route 301 to assess this segment as not supporting of the Aquatic Life Use goal for the 2004 water quality assessment. Three of 19 samples (15.8%) were below the minimum DO level (4.0 mg/L) for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

Three of 17 samples (17.6%) were below the lower range (6.0 - 9.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards. This also results in an assessment of not supporting the Aquatic Life Use goal.

In addition, the Aquatic Life Use has an observed effect due to exceedances of the total phosphorus screening value of 0.20 mg/L (5 of 19 samples - 26.3%).

IMPAIRMENT SOURCE: Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George

STREAM NAME: Upper Machodoc Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAN-A30R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.19 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Pepper Mill Creek

RIVER MILE: 11.13

LATITUDE: 38.32165 **LONGITUDE:** -77.10756

DOWNSTREAM LIMIT:

DESCRIPTION: End of free-flowing waters

RIVER MILE: ~8.9

LATITUDE: 38.30896 **LONGITUDE:** -77.08802

Segment begins at the confluence of Pepper Mill Creek to Upper Machodoc Creek, approximately 0.75 rivermiles upstream of Route 301, downstream to the end of the free-flowing waters of Upper Machodoc Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: pH (2004), Fecal Coliform (2004)

Sufficient exceedances of the instantaneous fecal coliform bacteria criterion (2 of 15 samples - 13.3%) were recorded at DEQ's ambient water quality monitoring station 1AUMC009.61 at the Route 301 bridge to assess this stream segment as not supporting of the Recreation Use goal for the 2004 water quality assessment.

Sufficient excursions from the pH water quality criteria were recorded at monitoring station 1AUMC009.61 to assess this segment as not supporting of the Aquatic Life Use goal. Two (2) of 12 samples (16.7%) were below the lower range (6.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

IMPAIRMENT SOURCE: Unknown, Unknown

The source of impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George, Westmoreland

STREAM NAME: Rosier Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A31E-01

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.28 - Sq. Mi.

INITIAL LISTING: 1999 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 4.44

LATITUDE: 38.25880 **LONGITUDE:** -77.05500

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 1.24

LATITUDE: 38.27140 **LONGITUDE:** -77.01390

Described in VDH Notice and Description of Shellfish Condemnation Number 088

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 088, 7/8/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Monroe Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A31E-04

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.37 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: 38.23830 **LONGITUDE:** -76.98130

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: 37.23440 **LONGITUDE:** -76.96610

Described in VDH Condemnation Notice 001A, D

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 001A, D

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Mattox Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A31E-06

ASSESSMENT CATEGORY: 5A, 5B

SEGMENT SIZE: 0.4 - Sq. Mi.

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit (Route 205 bridge)

RIVER MILE: 4.10

LATITUDE: 38.19920 **LONGITUDE:** -77.00750

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: 38.21080 **LONGITUDE:** -76.97170

Described in VDH Notice and Description of Shellfish Condemnation Number 001B

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Shellfish Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, VDH Shellfish Restriction

The segment was initially listed in 1996 based on excessive fecal coliform standards at the Route 205 bridge (1AMAO004.08).

The segment was adjusted during the 2004 cycle to be coincident with VDH-DSS Shellfish Condemnation 001B, 7/5/2002

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform impairment in this segment is currently considered unknown.

Targeted monitoring is necessary to further delineate the extent of impairment and to characterize its causes and sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Potomac River: Popes Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A31E-07

ASSESSMENT CATEGORY: 5A, 5B

SEGMENT SIZE: 0.41 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit

RIVER MILE: 3.19

LATITUDE: 38.16810 **LONGITUDE:** -76.93250

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Potomac River

RIVER MILE: 0.00

LATITUDE: 38.20150 **LONGITUDE:** -76.93360

From the extent of tide to the mouth of Popes Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Shellfish Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, VDH Shellfish Restriction

Fecal coliform standard violation rate of 3/17 at 1APOP000.38
TMDL due 2014

VDH-DSS Shellfish Condemnation 146, 4/27/1989
TMDL due 2010

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Monroe Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A31E-10

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.34 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: **LONGITUDE:**

Monroe Creek from its headwaters to its mouth

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: PCBs

Monroe Creek was assessed not supporting of the Fish Consumption Use based on exceedances of the tissue screening level for PCBs in white perch and gizzard shad at 1AMON002.49.

IMPAIRMENT SOURCE: Unknown

The source of the PCBs is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Bridges Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A31E-11

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.19 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: **LONGITUDE:**

The tidal portion of Bridges Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Bridges Creek was assessed not supporting of the Recreation Use support goal based on a fecal coliform violation rate of 2/2 at 01660860, a USGS station.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George, Westmoreland

STREAM NAME: Pine Hill Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A31R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 8.5 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 8.50

LATITUDE: 38.25790 **LONGITUDE:** -77.15960

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Rosier Creek

RIVER MILE: 0.00

LATITUDE: 38.25870 **LONGITUDE:** -77.03690

Mainstem from headwaters to tidal limit at Rosier Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Pine Hill Creek was "identified to Virginia for listing consideration". pH was listed as the parameter of concern. During the 2002 cycle, the segment was assessed as impaired of the Aquatic Life use support goals based on DO violations and pH violations at the Route 208 bridge (1APIN000.57) and widespread pH violations upstream.

During the 2004 cycle the violation rates were 2/13 for both dissolved oxygen and pH. The pH TMDL is due in 2010; the DO TMDL is due in 2014.

In addition, in 2004 the segment was listed as having an "observed effect" due to a cadmium exceedance in sediment. This is not an impairing cause.

IMPAIRMENT SOURCE: Natural Conditions

Natural conditions suspected.

The source of the cadmium in sediment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: King George, Westmoreland

STREAM NAME: Mattox Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A31R-02

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 34.03 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 12.60

LATITUDE: 38.22940 **LONGITUDE:** -77.11010

DOWNSTREAM LIMIT:

DESCRIPTION: Tidal limit

RIVER MILE: 4.10

LATITUDE: 38.19890 **LONGITUDE:** -77.01250

Mattox Creek watershed from its headwaters to the limit of tide.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

The segment was assessed during the 1998 cycle as threatened of the Aquatic Life use support goal based on pH violations at the Route 627 bridge (1AMAO007.46). During the year 2002 cycle, the segment was downgraded based on the results of a special study and the segment length was revised to end at the tidal limit. During the 2004 cycle, the violation rate was 14/18. The pH TMDL is due in 2014.

The segment was also assessed during the year 2002 cycle as not supporting of the Recreation use goal based on a fecal coliform violation rate of 1AMAO007.46. The violation rate for the 2004 cycle is 7/20. The fecal coliform TMDL is due in 2014.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The source of the pH impairment in this segment is currently considered unknown, but is suspected to be the result of forest leaf decay.

The source of the fecal coliform violations is considered unknown.

Targeted monitoring may be necessary to further delineate the extent of impairment and to characterize its causes and sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Cold Harbor Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-01

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.08 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 1.15

LATITUDE: 38.15690 **LONGITUDE:** -76.78060

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.00

LATITUDE: 38.15890 **LONGITUDE:** -76.77080

Described in VDH Notice and Description of Shellfish Condemnation 184A, 6/18/2002

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 184A, 6/18/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Currioman Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-02

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.04 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 0.92

LATITUDE: 38.14310 **LONGITUDE:** -76.76940

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 184B, 6/18/2002

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 184B, 6/18/2002

Impaired in 1998
In 2004, the condemnation boundary was altered slightly. The acreage was unaffected.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Nomini Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-04

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.53 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 9.94

LATITUDE: 38.06030 **LONGITUDE:** -76.70670

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 082A, 6/18/2002

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

Portions of Nomini Creek (0.28 sq. mi) and Pierce Creek (0.14 sq. mi) were assessed as impaired in 1998. During the 2004 cycle, the condemnation was expanded and combined into VDH Shellfish Restriction 082A, 6/18/2002.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Buckner Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-05

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.23 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 2.46

LATITUDE: 38.12720 **LONGITUDE:** -76.68560

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 082B, 6/18/02.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 082B, 6/18/2002

Segment initially listed in 1998, expanded in 2004

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: North Prong

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-06

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.04 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 0.69

LATITUDE: 38.14250 **LONGITUDE:** -76.70190

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.31

LATITUDE: 37.14310 **LONGITUDE:** -76.70710

Described in VDH Notice and Description of Shellfish Condemnation Number 082C

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 082C, 6/18/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Nomini Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-07

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.25 - Sq. Mi.

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: 1ANOM001.00

RIVER MILE: 1.00

LATITUDE: 38.14940 **LONGITUDE:** -76.72250

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth of Nomini Creek

RIVER MILE: 0.00

LATITUDE: 38.16220 **LONGITUDE:** -76.71800

Downstream of river mile 1.0.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Assessed not supporting of the Aquatic Life use support goal because of a dissolved oxygen violation rate of 2/5 at 1ANOM000.50. A depth profile consisting of 5 samples was taken 8/29/1996. The deepest two samples violated the standard.

IMPAIRMENT SOURCE: Stratification

Stratified water column indicated by data.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Lower Machodoc Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-08

ASSESSMENT CATEGORY: 5A, 5B

SEGMENT SIZE: 0.53 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 6.33

LATITUDE: 38.09750 **LONGITUDE:** -76.68670

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 083A, 12/18/2002

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction, Dissolved Oxygen

0.36 sq. miles of Lower Machodoc Creek was assessed in 1998 as impaired of the Shellfish Use due to a VDH shellfish condemnation. The segment was shortened in 2002 and then extended to 0.53 sq. miles in 2004.

In 2004, the segment was also considered not supporting of the Aquatic Life Use due to dissolved oxygen violations at 1ALOW004.73. The DO TMDL is due in 2016.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Branson Cove

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-09

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.03 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 0.50

LATITUDE: 38.14250 **LONGITUDE:** -76.63280

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.19

LATITUDE: 38.14170 **LONGITUDE:** -76.63830

Described in VDH Notice and Description of Shellfish Condemnation Number 083C

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 083C, 12/18/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Weatherall Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A32E-10

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.05 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 083B, 12/18/2002

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 083B, 12/18/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Gardner Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-01

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.14 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 1.54

LATITUDE: 38.11580 **LONGITUDE:** -76.62310

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 143

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 143, 7/2/2002

Size extended during 2004 cycle.

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Potomac River: Jackson Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-02

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.14 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 1.38

LATITUDE: 38.09560 **LONGITUDE:** -76.61170

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: 38.10440 **LONGITUDE:** -76.60080

Described in VDH Notice and Description of Shellfish Condemnation 144

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 144, 7/2/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Bonum Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-03

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.31 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 1.92

LATITUDE: 38.09690 **LONGITUDE:** -76.58890

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 1.27

LATITUDE: 38.08600 **LONGITUDE:** -76.59220

Described in VDH Notice and Description of Shellfish Condemnation 159

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 159, 7/2/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: White Point Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-05

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.11 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 1.35

LATITUDE: 38.04860 **LONGITUDE:** -76.57280

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 028A

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 028A, 7/11/2002

The segment was listed as impaired in 1998 as 0.21 sq. mi, was shortened in 2002 to 0.03 sq. mi., and was readjusted in 2004 to 0.11 sq. mi.

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland, Northumberland

STREAM NAME: Hampton Hall Branch

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-07

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.3 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 2.92

LATITUDE: 38.00330 **LONGITUDE:** -76.59750

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 028C

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 028C, 7/11/2002

Size extended during 2004 cycle.

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Westmoreland

STREAM NAME: Kinsale Branch

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-08

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.09 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 1.23

LATITUDE: 38.03390 **LONGITUDE:** -76.58720

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.27

LATITUDE: 38.02890 **LONGITUDE:** -76.56690

Described in VDH Notice and Description of Shellfish Condemnation 028B

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 028B, 7/11/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Mill Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-09

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.1 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 1.99

LATITUDE: 37.99890 **LONGITUDE:** -76.54060

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 1.10

LATITUDE: 38.00500 **LONGITUDE:** -76.56000

Described in VDH Notice and Description of Shellfish Condemnation 028D

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 028D, 7/11/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Lodge Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-10

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.26 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 3.05

LATITUDE: 37.94720 **LONGITUDE:** -76.54060

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 028B

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 028E, 7/11/2002

The segment was enlarged in 2004 and combines two previous Lodge Creek segments into one condemnation.

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Dungan Cove

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33E-11

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.03 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 0.67

LATITUDE: 38.00060 **LONGITUDE:** -76.52750

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 028F

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 028F, 7/11/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Mill Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A33R-01

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 3.95 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE:

LATITUDE: 37.94950 **LONGITUDE:** -76.60000

DOWNSTREAM LIMIT:

DESCRIPTION: Courtney Millpond

RIVER MILE:

LATITUDE: 37.99900 **LONGITUDE:** -76.57450

From its headwaters to Courtney Millpond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

Mill Creek was assessed not supporting of the Aquatic Life use support goal based on a pH standard violation rate of 3/20 at Route 202 (1AMIA004.12).

The segment was assessed not supporting of the Recreation use goal based on a fecal coliform violation rate of 6/20 at 1AMIA004.12.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The source of the pH violations is considered unknown, but natural conditions are suspected.

The source of the fecal coliform violations is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: The Glebe

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-01

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.23 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 2.92

LATITUDE: 37.98670 **LONGITUDE:** -76.52250

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 145C

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 145C, 11/27/2002

Size was increased in 2004 cycle.

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Killneck Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-02

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.05 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 0.83

LATITUDE: 37.97970 **LONGITUDE:** -76.48000

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.23

LATITUDE: 37.98420 **LONGITUDE:** -76.47420

Described in VDH Notice and Description of Shellfish Condemnation 145D

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 145D, 11/27/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Stevens Point

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-03

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.05 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 0.50

LATITUDE: 37.97860 **LONGITUDE:** -76.47500

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.10

LATITUDE: 37.98170 **LONGITUDE:** -76.46890

Described in VDH Notice and Description of Shellfish Condemnation 145E, 11/27/2002

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 145E, 11/27/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Coan River

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-04

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.05 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: 37.96750 **LONGITUDE:** -76.48390

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation Number 145F

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 145F, 11/27/2002

Size increased in 2004 cycle.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Coan River

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-05

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.5 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: 37.93170 **LONGITUDE:** -76.49500

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation Number 145H

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 145H, 11/27/2002

Segment expanded in 2004 cycle and now incorporates previous shellfish condemnations on Headly Cove and Mill Creek

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Cod Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-07

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.04 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: 37.96690 **LONGITUDE:** -76.44830

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation Number 141A

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 141A, 11/13/01
Segment was shortened in 2004.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Cod Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-08

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.04 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: 37.96470 **LONGITUDE:** -76.43360

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: 37.97110 **LONGITUDE:** -76.43530

Described in VDH Notice and Description of Shellfish Condemnation Number 141B

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 141B, 11/13/01

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Presley Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-09

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.29 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 2.23

LATITUDE: 37.94250 **LONGITUDE:** -76.41080

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.35

LATITUDE: 37.96330 **LONGITUDE:** -76.41690

Described in VDH Notice and Description of Shellfish Condemnation 140

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 140, 4/27/1989

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Bridgeman Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-10

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.04 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 0.73

LATITUDE: 37.95060 **LONGITUDE:** -76.39800

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.15

LATITUDE: 37.96250 **LONGITUDE:** -76.39030

Described in VDH Notice and Description of Shellfish Condemnation Number 142A

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 142A, 9/30/02

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Hull Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-12

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.11 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 4.38

LATITUDE: 37.91560 **LONGITUDE:** -76.38470

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 142B

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 142B, 9/30/02

Size reduced in 2004 cycle.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Rogers Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-13

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.02 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 0.84

LATITUDE: 37.93810 **LONGITUDE:** -76.37610

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE: 0.38

LATITUDE: 37.95110 **LONGITUDE:** -76.37940

Described in VDH Notice and Description of Shellfish Condemnation 142C

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 142C, 9/30/02

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Potomac River: Cubitt Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-14

ASSESSMENT CATEGORY: 5A, 5B

SEGMENT SIZE: 0.23 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: 37.92750 **LONGITUDE:** -76.35920

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: 37.94920 **LONGITUDE:** -76.35000

Described in VDH Notice and Description of Shellfish Condemnation Number 168

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction, Fecal Coliform

VDH-DSS Shellfish Condemnation 168, 4/27/1989
Shellfish TMDL due in 2010

The segment was also listed for the Recreation Use in 2004 due to a fecal coliform violation rate of 3/20 at 1ACUT000.58. The TMDL is due in 2016.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Little Wicomico River:Cod Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-15

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.05 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: 37.88000 **LONGITUDE:** -76.30420

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation Number 105B

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 105B, 6/21/2002

Segment was shortened by 0.3 sq. mi. in 2004

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Little Wicomico River

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-16

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.47 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE: 6.62

LATITUDE: 37.90800 **LONGITUDE:** -76.33110

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 105A

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 105A, 6/21/2002

Size increased by 0.01 sq. mi. in 2004

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Wrights Cove

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-22

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.04 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 145B

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 145B, 11/27/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: The Glebe

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-23

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.04 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 145A

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 145A, 11/27/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Spring Cove

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-24

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.01 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Tidal limit

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Hull Creek

RIVER MILE:

LATITUDE: **LONGITUDE:**

Spring Cove, tributary to Hull Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed as not supporting the Recreation use due to a fecal coliform violation rate of 4/20 at 1ASPN000.08

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Boathouse Creek

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34E-25

ASSESSMENT CATEGORY: 5B

SEGMENT SIZE: 0.07 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Upstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream condemnation boundary

RIVER MILE:

LATITUDE: **LONGITUDE:**

Described in VDH Notice and Description of Shellfish Condemnation 145G

CLEAN WATER ACT GOAL AND USE SUPPORT:

Shellfishing Use - Not Supporting

IMPAIRMENT CAUSE: VDH Shellfish Restriction

VDH-DSS Shellfish Condemnation 145G, 11/27/2002

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Northumberland

STREAM NAME: Coan Mill Stream

HYDROLOGIC UNIT: 02070011

TMDL ID: VAP-A34R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.53 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: UT Confluence

RIVER MILE: 1.53

LATITUDE: 37.92370 **LONGITUDE:** -76.49750

DOWNSTREAM LIMIT:

DESCRIPTION: Coan River Confluence

RIVER MILE: 0.00

LATITUDE: 37.93830 **LONGITUDE:** -76.48680

From the confluence with the unnamed tributary at river mile 1.52 downstream to the Coan River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Coan Mill Stream is assessed not supporting of the Aquatic Life use goal based on a fecal coliform violation rate of 6/20 at Route 360 (1ACON000.96).

The same segment is considered fully supporting with observed effects of the Aquatic Life use goal because of a phosphorus screening value exceedance rate of 3/20 at 1ACON000.96. This is not an impairing cause.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Highland

STREAM NAME: Straight Fork

HYDROLOGIC UNIT: 02070001

TMDL ID: VAV-B01R-01

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 7.57 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 7.57

LATITUDE: 38.48147 **LONGITUDE:** -79.62602

DOWNSTREAM LIMIT:

DESCRIPTION: VA/WVA State Line

RIVER MILE: 0.00

LATITUDE: 38.57022 **LONGITUDE:** 79.57085

Segment begins at the headwaters and continues downstream to the VA/WVA State Line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform, Temperature

Monitoring station 1ASTT006.12 had 2 pH standards exceedances out of 14 samples. Monitoring station 1ASTT006.12 had 3 temperature standard exceedances out of 15 samples.

Monitoring station 1ASTT006.12 had 3 fecal coliform standard exceedances out of 15 samples.

IMPAIRMENT SOURCE: Atmospheric Deposition, Unknown, Natural Conditions

The source of the pH exceedances is believed to be acid deposition. The source of the temperature standard exceedances is natural.

The source of the fecal coliform exceedances is believed to be NPS runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Highland

STREAM NAME: West Strait Creek

HYDROLOGIC UNIT: 02070001

TMDL ID: VAV-B02R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.35 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Discharge from Monterey STP

RIVER MILE: 3.85

LATITUDE: 38.41500 **LONGITUDE:** -79.57306

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream to Burners Run

RIVER MILE: 3.50

LATITUDE: 38.41889 **LONGITUDE:** -79.57028

Segment begins at the Monterey STP discharge and continues downstream to the confluence with Burners Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Monitoring station 1AWSC003.67 continues to receive severely impaired benthic ratings. Sampling was done in the spring & fall of 1999 and 2000. The cause of the impairment below the discharge is believed to be ammonia toxicity and/or solids deposition.

IMPAIRMENT SOURCE: PS - STP - Town of Monterey

The STP is the source of the impairment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Highland

STREAM NAME: Strait Creek

HYDROLOGIC UNIT: 02070001

TMDL ID: VAV-B02R-02

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 3.26 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the West Strait Creek confluence.

RIVER MILE: 3.26

LATITUDE: 38.44806 **LONGITUDE:** -79.53500

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the confluence with the South Branch Potomac River.

RIVER MILE: 0.00

LATITUDE: 38.48222 **LONGITUDE:** -79.50861

Segment begins at the confluence with West Strait Creek and ends at the confluence with the South Branch Potomac River

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Temperature

1ASTC000.72 - Moderately Impaired Benthic Rating during the 2004 assessment period. The exact cause of the moderately impaired rating is not known. 1ASTC000.02 - 2 temperature standard exceedances out of 13 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Channelization, Natural Conditions

The moderately impaired benthic rating is believed to be due to channelization and riparian modifications. The source of the temperature standard exceedances is natural.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Highland

STREAM NAME: West Strait Creek

HYDROLOGIC UNIT: 02070001

TMDL ID: VAV-B02R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.92 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 4.77

LATITUDE: 38.41553 **LONGITUDE:** -79.58643

DOWNSTREAM LIMIT:

DESCRIPTION: Discharge from Monterey STP

RIVER MILE: 3.85

LATITUDE: 38.41500 **LONGITUDE:** -79.57306

Segment begins at the headwaters and continues downstream to the Monterey STP discharge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Monitoring station 1AWSC003.79 was assessed as moderately impaired for the 2004 assessment.

IMPAIRMENT SOURCE: NPS - Agriculture

The source of the impairment is believed to be non-point source agriculture.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Highland

STREAM NAME: South Branch Potomac River

HYDROLOGIC UNIT: 02070001

TMDL ID: VAV-B02R-04

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 10.84 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 10.84

LATITUDE: 38.43944 **LONGITUDE:** -79.61444

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the WVA/VA State line.

RIVER MILE: 0.00

LATITUDE: 38.50083 **LONGITUDE:** -79.49500

Segment begins at the headwaters and ends at the WVA/VA State Line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Temperature

1ASOA001.00 - 4 temperature violations out of 17 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Natural

The source is natural conditions

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Highland

STREAM NAME: South Fork South Br Pot River

HYDROLOGIC UNIT: 02070001

TMDL ID: VAV-B03R-01

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 2.49 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 2.49

LATITUDE: 38.39917 **LONGITUDE:** -79.39000

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the State Line

RIVER MILE: 0.00

LATITUDE: 38.42667 **LONGITUDE:** -79.36889

Segment begins at the headwaters and ends at the WVA/VA State Line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004), Temperature

1ASFP002.56 - There were 3 fecal coliform standard exceedances out of 22 samples during the 2002 assessment period. 1ASFP002.56 - 3 temperature violations out of 15 samples during the 2002 assessment period.

IMPAIRMENT SOURCE: NPS, Natural Conditions

The source of the fecal coliform standard exceedances is believed to be NPS runoff. The temperature violations are due to natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Frederick

STREAM NAME: Back Creek

HYDROLOGIC UNIT: 02070004

TMDL ID: VAV-B05R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 18.69 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 25.32

LATITUDE: 39.17250 **LONGITUDE:** -78.40694

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the confluence with Hogue Crk

RIVER MILE: 6.63

LATITUDE: 39.30333 **LONGITUDE:** -78.22222

Segment begins at the headwaters and ends at the confluence with Hogue Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Temperature

1ABAR047.26 - 3 temperature violations out of 16 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Natural Conditions

The temperature violations are due to natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Frederick

STREAM NAME: Hogue Creek

HYDROLOGIC UNIT: 02070004

TMDL ID: VAV-B06R-02

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 16.76 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 16.76

LATITUDE: 39.18694 **LONGITUDE:** -78.37028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Back Creek

RIVER MILE: 0.00

LATITUDE: 39.30333 **LONGITUDE:** -78.22222

Segment begins at the headwaters and ends at the confluence with Back Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic 2002), Fecal Coliform (2002), Temperature

1BHOC006.23 had a Moderately Impaired benthic rating during the 2002 assessment period and a Slightly Impaired rating for the 2004 assessment cycle. The exact cause of the impairment is not known. 1BHOC006.23 - 9 exceedances of the temperature standard out of 40 samples for the 2004 assessment period.

1BHOC006.23 - Six fecal coliform values exceeded the standard out of 27 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: Unknown, NPS, Natural Conditions

The source of the benthic impairment is unknown. The source is natural conditions.

The source of the fecal coliform standard exceedances in believed to be NPS.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Frederick

STREAM NAME: Babbs Run

HYDROLOGIC UNIT: 02070004

TMDL ID: VAV-B07R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 14.48 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 14.48

LATITUDE: 39.21438 **LONGITUDE:** -78.24089

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Back Creek

RIVER MILE: 0.00

LATITUDE: 39.35041 **LONGITUDE:** -78.18764

Segment begins at Babbs Run headwaters and continues downstream to the confluence with Back Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1ABAB004.54 - 3 Fecal Coliform standard exceedances out of 13 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS

The source of the Fecal Coliform is believed to be NPS runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Clarke, Frederick

STREAM NAME: Lick Run

HYDROLOGIC UNIT: 02070004

TMDL ID: VAV-B09R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.87 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: The segment begins at the headwaters.

RIVER MILE: 8.87

LATITUDE: 39.23017 **LONGITUDE:** -78.10574

DOWNSTREAM LIMIT:

DESCRIPTION: The segment ends at the confluence with Opequon Creek.

RIVER MILE: 0.00

LATITUDE: 39.21516 **LONGITUDE:** -78.08385

Segment begins at the headwaters and ends at the confluence with Opequon Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1ALIR000.95 - 3 Fecal Coliform standard exceedances out of 18 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Unknown

The source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Clarke, Frederick, Winchester

STREAM NAME: Redbud Run

HYDROLOGIC UNIT: 02070004

TMDL ID: VAV-B09R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.07 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: The segment begins at the headwaters.

RIVER MILE: 8.07

LATITUDE: 39.23053 **LONGITUDE:** -78.16821

DOWNSTREAM LIMIT:

DESCRIPTION: The segment ends at the confluence with Opequon Creek.

RIVER MILE: 0.00

LATITUDE: 39.18753 **LONGITUDE:** -78.07582

Segment begins at the headwaters and ends at the confluence with Opequon Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

1ARED000.46 - 3 Fecal Coliform standard exceedances out of 19 samples during the 2004 assessment period.

1ARED000.46 had a Moderately Impaired bethic assessment for the 2004 assessed cycle.

IMPAIRMENT SOURCE: NPS, Unknown

The source is of the fecal coliform is believed to be NPS runoff.

The source of the benthic impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Middle River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B10R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 15.71 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 69.0

LATITUDE: 38.04806 **LONGITUDE:** -79.26194

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Eidson Creek

RIVER MILE: 53.29

LATITUDE: 38.22056 **LONGITUDE:** -79.13194

Segment begins at the headwaters and continues downstream to the confluence with the Eidson Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic) 1998

1BMDL060.48 - 14 Fecal Coliform violations out of 25 samples and 1BMDL061.07 - Four Fecal Coliform violations out of five samples during the 2004 assessment cycle.

A single benthic monitoring survey in 2002 indicated Moderately Impaired conditions in 2 stations bracketing Cockran Spring (1BMDL066.05 & 1BMDL066.47). The exact cause of the impairment is not known.

TMDLs for both parameters are currently under development.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife, NPS - Agriculture

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

The source of the benthic impairment is believed to be from NPS agricultural runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Back Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B10R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.39 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 8.39

LATITUDE: 38.06667 **LONGITUDE:** -79.21044

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the confluence with Middle River

RIVER MILE: 0.00

LATITUDE: 38.15057 **LONGITUDE:** -79.18286

Segment begins at the headwaters and continues downstream to the confluence with the Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BBAK001.74 - 5 Fecal Coliform violations out of 10 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Eidson Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B10R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.66 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 8.66

LATITUDE: 38.08073 **LONGITUDE:** -79.19668

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the confluence with Middle River

RIVER MILE: 0.00

LATITUDE: 38.17938 **LONGITUDE:** -79.16009

Segment begins at the headwaters and continues downstream to the confluence with the Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BEDN003.67 - 6 Fecal Coliform violations out of 9 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Falls Hollow

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B11R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.52 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 3.52

LATITUDE: 38.16563 **LONGITUDE:** -79.31055

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence with Buffalo Branch

RIVER MILE: 0.00

LATITUDE: 38.17983 **LONGITUDE:** -79.25117

The segment begins at Falls Hollow's headwaters and continues downstream to its confluence with Buffalo Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS Monitoring Station 1003 had a Moderately Impaired assessment for the 2004 assessment cycle

IMPAIRMENT SOURCE: Unknown

The source is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Staunton

STREAM NAME: Lewis Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B12R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.55 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins just South of Staunton

RIVER MILE: 9.55

LATITUDE: 38.12861 **LONGITUDE:** -79.10056

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Middle River.

RIVER MILE: 0.00

LATITUDE: 38.18889 **LONGITUDE:** -78.96972

Segment begins just South of Staunton and continues downstream to the confluence with Middle River near Verona.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting, Fish Consumption - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Ecoli, PCBs in Fish Tissue

1BLEW006.95 had a rating of severely impaired during the 2004 assessment period. The exact cause of the impairment is not known.

1BLEW002.91- 24 Ecoli standard violations out of 33 samples during the 2004 assessment period.

1BLEW005.24 - PCBs exceeded the standard in two different fish species during the 2004 assessment period resulting in a Not Supporting assessment.

A TMDL is being developed for the fecal coliform parameter.

IMPAIRMENT SOURCE: NPS - Agriculture/Urban, NPS - Agriculture/Urban, Unknown

The primary source of the Ecoli and the problems with the benthic community are due to NPS urban and agricultural runoff.

The source of the PCB is not known.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Middle River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B12R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 27.77 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the confluence with Jennings Branch.

RIVER MILE: 45.81

LATITUDE: 38.22045 **LONGITUDE:** -79.13136

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the confluence with Christians Creek.

RIVER MILE: 18.04

LATITUDE: 38.19398 **LONGITUDE:** -78.93470

Begins at the confluence with Jennings Branch and continues downstream to the confluence with Christians Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BMDL036.10 - Fully supported the Aquatic Life Use the 1998 and 2004 assessment cycles. However, EPA improperly allowed this station to be added to Appendix B of the 1998 Consent Decree and now refuses to De-List it.

IMPAIRMENT SOURCE: None

There is no actual impairment so there is no source.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Moffett Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B13R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.95 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Tunnel Branch

RIVER MILE: 8.95

LATITUDE: 38.30278 **LONGITUDE:** -79.17778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Middle River

RIVER MILE: 0.00

LATITUDE: 38.24389 **LONGITUDE:** -79.08500

Segment begins with Moffett Creek's confluence with Tunnel Branch and continues downstream to its confluence with the Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BMFT006.20 and 1BMFS005.11 had a benthic ratings of moderately impaired during the 2004 assessment period. The exact cause of the impairment is not known.

1BMFT006.20 - 5 fecal coliform violations out of 18 samples during the 2004 assessment period.

1BMFT001.43 - 2 fecal coliform violations out of 8 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture, NPS - Agriculture/Wildlife

The primary source of the Fecal Coliform is NPS agricultural and wildlife runoff.

The exact source of the benthic impairment is not known.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Elk Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B13R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.98 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 3.98

LATITUDE: 38.27214 **LONGITUDE:** -79.16685

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Moffett Creek

RIVER MILE: 0.00

LATITUDE: 38.26031 **LONGITUDE:** -79.10256

Segment begins at Elk Run's headwaters and continues downstream to its confluence with the Moffett Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BEKR000.25 - 2 fecal coliform violations out of 9 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source is NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Tunnel Hollow

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B13R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.95 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 2.06

LATITUDE: 38.32459 **LONGITUDE:** -79.19846

DOWNSTREAM LIMIT:

DESCRIPTION: USFS monitoring station 2021

RIVER MILE: 1.11

LATITUDE: 38.31401 **LONGITUDE:** -79.19130

Segment begins at Tunnel Hollow's headwaters and continues downstream to USFS monitoring station 2021

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS 2021 - Had a Moderately Impaired Benthic assessment during the 2004 assessment period.

IMPAIRMENT SOURCE: Atmospheric Deposition

The primary source is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Christians Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B14R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 31.45 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2002

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 31.45

LATITUDE: 38.02861 **LONGITUDE:** -79.18722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Middle River

RIVER MILE: 0.00

LATITUDE: 38.19389 **LONGITUDE:** -78.93472

Segment begins at Christians Creek's headwaters and continues downstream to its confluence with the Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting, 1

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic) 1998

1BCST012.32 - 14 fecal coliform violations out of 40 samples and 1BCST021.76 - 36 fecal coliform violations out of 52 samples during the 2004 assessment period.

1BCST007.42 had a slightly impaired benthic rating for the 2004 assessment period but EPA guidance requires that it be assessed as Moderately Impaired because one of the last surveys was Moderately Impaired.

IMPAIRMENT SOURCE: Agriculture\Wildlife\Human, NPS - Agriculture

The primary source of the fecal coliform is NPS agricultural and wildlife runoff. A TMDL has been approved by EPA for this parameter.

The biological monitoring station was fully supporting the Aquatic Life Use during the 2002 & 2004 assessment cycles. A TMDL is being prepared for this parameter.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Folly Mills Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B14R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 13.14 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 13.14

LATITUDE: 38.08029 **LONGITUDE:** -79.17158

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Christians Creek.

RIVER MILE: 0.00

LATITUDE: 38.08381 **LONGITUDE:** -79.04105

Segment begins at Folly Mills Creek's headwaters and continues downstream to its confluence with Christians Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, 1

IMPAIRMENT CAUSE: Fecal Coliform

1BFMC001.61 - 4 fecal coliform violations out of 9 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Agriculture\Wildlife\Human

The primary source of the fecal coliform is NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Nelson, Rockingham

STREAM NAME: Middle River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B15R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 17.57 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Christians Creek

RIVER MILE: 17.57

LATITUDE: 38.19000 **LONGITUDE:** -78.93000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River

RIVER MILE: 0.00

LATITUDE: 38.28000 **LONGITUDE:** -78.85000

Segment begins at Middle River's confluence with Christians Creek and continues downstream to its confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BMDL001.83 - 15 fecal coliform violations out of 49 samples during the 2004 assessment.

IMPAIRMENT SOURCE: NPS - Agriculture

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Polecat Draft

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B15R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.47 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 7.47

LATITUDE: 38.22944 **LONGITUDE:** -78.88528

DOWNSTREAM LIMIT:

DESCRIPTION: confluence with Middle River

RIVER MILE: 0.00

LATITUDE: 38.15528 **LONGITUDE:** -78.89139

Segment begins at Polecat Draft's headwaters and continues downstream to its confluence with the Middle River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BPCD001.03 - 7 E. Coli violations out of 8 samples during the 2004 assessment cyle.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source is NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: North River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B16R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 23.12 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 55.03

LATITUDE: 38.44583 **LONGITUDE:** -79.26000

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the confluence with Freemason Run

RIVER MILE: 31.91

LATITUDE: 38.35139 **LONGITUDE:** -79.09556

Segment begins at the headwaters and ends at the confluence with Freemason Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting (10.03 Miles)

IMPAIRMENT CAUSE: pH, General Standard (Benthic) (10.03 Miles)

1BNTH036.96 - 11 pH values out of 23 samples were below the minimum standard during the 2004 assessment period.

1BNTH046.75 - Has never had a Moderately Impaired rating, however, EPA allowed to be placed on Attachment B of the Consent Decree in 1998. The segment is shorter than the pH segment beginning at the headwaters and continuing to the head of Elkhorn Lake (10.03 Miles).

IMPAIRMENT SOURCE: Atmospheric Deposition, None - (10.03 Miles)

The source of the low pHs is believed to be atmospheric deposition.

There is no benthic impairment but EPA requires that it be listed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockingham

STREAM NAME: North River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B17R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 24.96 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Beaver Creek

RIVER MILE: 24.96

LATITUDE: 38.39000 **LONGITUDE:** -79.02000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with South River

RIVER MILE: 0.00

LATITUDE: 38.29583 **LONGITUDE:** -78.80833

Segment begins at North River's confluence with Beaver Creek and continues downstream to its confluence with the South River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BNTH021.00 - 15 fecal coliform violations out of 51 samples, 1BNTH022.25 - 3 fecal coliform violations out of 9 samples and 1BNTH014.08 had 10 E. Coli standard violations out of 27 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform and E. Coli bacteria is from NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockingham

STREAM NAME: Thorny Branch

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B17R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.1 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 7.1

LATITUDE: 38.42708 **LONGITUDE:** -79.11336

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River including a tributary

RIVER MILE: 0.00

LATITUDE: 38.38970 **LONGITUDE:** -79.06591

Segment begins at Thorny Branch's headwaters and continues downstream to its confluence with the North River including a tributary.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BTRN000.38 - 4 fecal coliform violations out of 8 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockingham

STREAM NAME: Wolf Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B18R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.11 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 3.11

LATITUDE: 38.44194 **LONGITUDE:** -79.16848

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Briery Branch

RIVER MILE: 0.00

LATITUDE: 38.43806 **LONGITUDE:** -79.12472

The segment begins at Wolf Run's headwaters and continues downstream to the confluence with Briery Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS monitoring station 2019 & 2042 - Had moderately impaired benthic ratings during the 2004 assessment cycle. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockingham

STREAM NAME: Briery Branch

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B18R-02

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 12.98 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 12.98

LATITUDE: 38.46889 **LONGITUDE:** -79.21944

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Beaver Creek.

RIVER MILE: 0.00

LATITUDE: 38.39472 **LONGITUDE:** -79.02167

Segment begins at the headwaters and ends at confluence with Beaver Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

1BBRY006.94 - 2 pH values out of 14 samples were below the minimum standard during the 2004 assessment period.

IMPAIRMENT SOURCE: Unknown

The source is not known, however the water quality standards need to be modified to reflect the correct geology of the area.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Beaver Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B18R-04

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 5.57 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 5.57

LATITUDE: 38.46222 **LONGITUDE:** -79.08833

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Briery Branch.

RIVER MILE: 0.00

LATITUDE: 38.39472 **LONGITUDE:** -79.02167

Segment begins at the headwaters and ends at the confluence with Briery Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting 2.8 miles, Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic) 2.4 miles, Fecal Colform, Temperature

1BBVR002.75 - Had a moderately impaired benthic rating during the 2004 assessment period. The exact cause of the impairment is not known (2.8 miles). 1BBVR003.60 - 6 temperature violations out of 21 samples during the 2004 assessment period.

1BBVR003.60 - 9 fecal coliform violations out of 22 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture 2.8 miles, NPS - Agriculture/Wildlife, Natural Conditions

The source of the benthic impairment is not known. The source of the temperature violations is natural.

The source of the fecal coliform bacteria is believed to be NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Briery Branch

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B18R-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.5 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Beaver Creek.

RIVER MILE: 1.5

LATITUDE: 38.39472 **LONGITUDE:** -79.02167

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River

RIVER MILE: 0.00

LATITUDE: 38.39473 **LONGITUDE:** -79.02157

Segment begins at the confluence with Beaver Creek and continues downstream to the confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BBRY001.22 - 3 fecal coliform violations out of 12 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS

The source of the Fecal Coliform bacteria is primarily from NPS runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockingham

STREAM NAME: Mossy Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B19R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.65 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 9.65

LATITUDE: 38.30363 **LONGITUDE:** -79.10496

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River

RIVER MILE: 0.00

LATITUDE: 38.38996 **LONGITUDE:** -79.01108

Segment begins at Mossy Creek's headwaters in Mount Solon and continues downstream to its confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting, 1

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

1BMSS001.35 - 26 fecal coliform violations out of 56 samples during the 2002 assessment period.

1BMSS003.01 - Biological monitoring indicated Slight Impairment during the 2004 assessment cycle as it had in 1998, 2000 & 2002. EPA requires that it be listed as impaired because they improperly allowed it to be placed on the Plantiffs list in 1998.

IMPAIRMENT SOURCE: NPS - Agriculture\Wildlife, None

The source of the E. Coli is believed to be NPS agricultural and wildlife runoff.

Because there is no acutal benthic impairment there is no source.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Dry River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B20R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 13 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 20.46

LATITUDE: 38.60583 **LONGITUDE:** -79.12889

DOWNSTREAM LIMIT:

DESCRIPTION: Ends near Lilly.

RIVER MILE: 7.46

LATITUDE: 38.47778 **LONGITUDE:** -79.02361

Segment begins at the headwaters and ends near Lilly.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

1BDUR016.66 - 5 pH values out of 9 samples were below the minimum standard during the 2004 assessment.

1BDUR007.66 - 3 pH minimum standard violations out of 20 samples during the 2004 assessment.

IMPAIRMENT SOURCE: None

The source is not known, however atmospheric deposition is a possibilty.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Dry River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B21R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.46 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Rt 613 Bridge at Lilly

RIVER MILE: 7.46

LATITUDE: 38.47000 **LONGITUDE:** -79.01000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River

RIVER MILE: 0.00

LATITUDE: 38.39000 **LONGITUDE:** -78.98000

Segment begins at the Rt 613 bridge at Lilly and continues downstream to the confluence with North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

1BDUR000.02 - 8 E. Coli violations out of 29 samples during the 2004 assessment.

A TMDL has been approved by EPA for Fecal Coliform this segment.

1BDUR000.11 fully supported the Aquatic Life Use in 2004 as it always has. However, EPA improperly allowed it to be added to Appendix B of the 1998 Consent Decree. The fall 2001 and fall 2002 ratings were almost at the Not Impaired level. None the less EPA refuses to De-List it.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife, None

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

Because there is no acutal benthic impairment there is no source.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Honey Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B21R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.07 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 3.07

LATITUDE: 38.45684 **LONGITUDE:** -79.03157

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Dry River

RIVER MILE: 0.00

LATITUDE: 38.42199 **LONGITUDE:** -78.98278

Segment begins at Honey Run's headwaters and continues downstream to its confluence with Dry River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BDUR000.02 - 3 Fecal Coliform violations out of 4 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockingham

STREAM NAME: North River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B23R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 16.32 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Cooks Creek

RIVER MILE: 16.32

LATITUDE: 38.34536 **LONGITUDE:** -78.93962

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with South River

RIVER MILE: 0.00

LATITUDE: 38.29583 **LONGITUDE:** -78.80833

Segment begins at North River's confluence with Cooks Creek and continues downstream until its confluence with the South River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting - 1998

IMPAIRMENT CAUSE: General Standard (Benthic) 1998

The benthic monitoring station fully supported the Aquatic Life Use during the 2000, 2002 & 2004 assessment periods but EPA will De-List the parameter.

IMPAIRMENT SOURCE: None

None

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockingham

STREAM NAME: Long Glade Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B24R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 10.74 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 10.74

LATITUDE: 38.27250 **LONGITUDE:** -79.05639

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River

RIVER MILE: 0.00

LATITUDE: 38.36861 **LONGITUDE:** -78.97167

Segment begins at the headwaters and continues downstream to its confluence with the North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BLGC000.96 - 9 fecal coliform violations out of 24 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Lake Shenandoah

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B29L-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 38.4 - Acres

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION:

RIVER MILE:

LATITUDE: **LONGITUDE:**

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

1BCNG003.13 - 42 DO violations out of 56 samples below the thermocline during the 2004 assessment period. Scores of the Trophic Status Index indicated nutrient enrichment.

1BCNG003.13 - 7 chlorophyll a values exceeded the screening value out of 7 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE: Nutrient enrichment

The source of the low dissolved oxygen is thermal stratification and nutrient enrichment from anthropogenic sources.

The source of the chlorophyll a is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: South River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B30R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 11.79 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 52.30

LATITUDE: 37.96333 **LONGITUDE:** -79.20806

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Stony Run

RIVER MILE: 40.51

LATITUDE: 38.01833 **LONGITUDE:** -79.08583

Segment begins at South River's headwaters and continues downstream to its confluence with Stony Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BSTH041.68 - Had 22 Fecal Coliform values exceed the standard out of 49 samples during the 2004 assessment cycle.

1BSTH044.90 - Had two Fecal Coliform values exceed the standard out of nine samples during the 2004 assessment cycle.

A TMDL is under development for this parameter.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Back Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B31R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 13.59 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 13.59

LATITUDE: 37.89778 **LONGITUDE:** -79.02500

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the South River confluence

RIVER MILE: 0.00

LATITUDE: 38.03917 **LONGITUDE:** -78.93500

Segment begins at the headwaters and ends at the South River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BBCK000.78 - Moderately Impaired Benthic Rating during the 2004 assessment cycle.

IMPAIRMENT SOURCE: Unknown

The source of the impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Mills Branch

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B31R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.07 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 8.07

LATITUDE: 37.91639 **LONGITUDE:** -79.05778

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Back Creek confluence

RIVER MILE: 0.00

LATITUDE: 37.98167 **LONGITUDE:** -78.95444

Segment begins at the headwaters and ends at the Back Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS 5084 had a severely impaired benthic rating during the 2002 assessment period. It was not visited during the 2004 assessment cycle so it remains on the 303(d) list.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Toms Branch

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B31R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.7 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 2.7

LATITUDE: 37.96992 **LONGITUDE:** -78.89882

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at its mouth.

RIVER MILE: 0.00

LATITUDE: 37.96391 **LONGITUDE:** -78.94494

Segment begins at the headwaters and ends at its mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS 5104 -Had a Moderately Impaired Benthic Rating during the 2004 assessment cycle.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY:

STREAM NAME: South River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B32R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.91 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at Meadow Brook Road Bridge

RIVER MILE: 29.18

LATITUDE: 38.06218 **LONGITUDE:** -78.91299

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Sawmill Run.

RIVER MILE: 19.27

LATITUDE: 38.10333 **LONGITUDE:** -78.86583

Segment begins at the Meadow Brook road bridge and continues downstream to the confluence with Sawmill Run

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BSTH021.72 had a moderately impaired benthic rating during the 2004 assessment period. The exact cause of the moderately impaired rating is unknown.

IMPAIRMENT SOURCE: NPS - Urban, Legacy - Threatened

The source of the benthic impairment is believed to be NPS urban runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockbridge, Rockingham, Waynesboro

STREAM NAME: South River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B32R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 29.18 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at Meadow Brook Road Bridge

RIVER MILE: 29.18

LATITUDE: 38.06218 **LONGITUDE:** -78.91299

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with North River

RIVER MILE: 0.00

LATITUDE: 38.29611 **LONGITUDE:** -78.80750

Segment begins at the Meadow Brook Road Bridge and continues downstream to the confluence with the North River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BSTH007.80 - Had 10 Fecal Coliform values exceed the standard out of 48 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS - Ag/Urban

The source of the Fecal Coliform is believed to be NPS Ag/Urban runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta, Rockingham

STREAM NAME: Paine Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B32R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.25 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 6.25

LATITUDE: 38.22133 **LONGITUDE:** -78.74585

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the South River confluence

RIVER MILE: 0.00

LATITUDE: 38.20979 **LONGITUDE:** -78.83463

Segment begins at the headwaters and ends at the South River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

USGS: 01627395 - Had two pH values below the minimum standard out of two samples during the 2004 assessment period.

PAIN - Had two pH values below the minimum standard out of two samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Augusta

STREAM NAME: Meadow Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B32R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.87 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 6.87

LATITUDE: 38.18264 **LONGITUDE:** -78.77151

DOWNSTREAM LIMIT:

DESCRIPTION: Ends where the stream goes underground

RIVER MILE: 0.00

LATITUDE: 38.17823 **LONGITUDE:** -78.82474

Segment begins at the headwaters and ends where the stream goes underground.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

VT36 - Had two pH values below the minimum standard out of two samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page, Rockingham

STREAM NAME: South Fork Shenandoah River

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B33R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 58.6 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of North & South Rivers

RIVER MILE: 102.66

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Hawksbill Creek

RIVER MILE: 44.06

LATITUDE: **LONGITUDE:**

Segment begins at the North & South River confluence and continues downstream to the Hawksbill Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic) 1998

1BSSF100.10 - 20 fecal coliform violations out of 50 samples during the 2004 assessment period. 1BSSF078.20 - 9 fecal coliform values violated the standard out of 37 samples during the 2004 assessment period. 1BSSF 085.08 - 3 fecal coliform values violated the standard out of 8 samples during the 2004 assessment cycle. 1BSSF092.69 - 2 fecal coliform values violated the standard out of 8 samples. 1BSSF054.20 - 6 fecal coliform violations out of 48 samples during the 2004 assessment cycle.

DEQ's biological monitoring station at river miles 101.10 had a moderately impaired benthic assessmenst during the 1998 assessment cycle and was not visited during the 2004 assessment cycle. 1BSSF078.18 had a moderately impaired benthic rating during the 2004 assessment cycle. 1BSSF053.05 had a moderately impaired benthic rating during the 1998 assessment cycle and was not visited during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS, Unknown

The source of the fecal coliform is believed to be NPS.

The source(s) of the benthic impairments is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Deep Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B33R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.33 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 4.33

LATITUDE: 38.26443 **LONGITUDE:** -78.73161

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the South Fork Shenandoah River confluence

RIVER MILE: 0.00

LATITUDE: 38.30418 **LONGITUDE:** -78.78303

Segment begins at the headwaters and ends at the South River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

DR01 - Had two pH values below the minimum standard out of two samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Cub Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B34R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 13.94 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 13.94

LATITUDE: 38.44000 **LONGITUDE:** -78.73000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the SF Shenandoah R.

RIVER MILE: 0.00

LATITUDE: 38.34000 **LONGITUDE:** -78.72000

Segment begins at Cub Run's headwaters and continues downstream to its confluence with the S.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BCBR000.80 - 9 Fecal Coliform violations out of 19 samples during the 2004 assessment period.

1BCBR007.42 - 6 Fecal Coliform violations out of 8 samples and 2 E. Coli violations out of 2 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural & wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Boone Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B35R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 13.1 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 13.10

LATITUDE: 38.44889 **LONGITUDE:** -78.72417

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the SF Shenandoah River

RIVER MILE: 0.00

LATITUDE: 38.43972 **LONGITUDE:** -78.63472

Segment begins at the headwaters and ends at the South Fork Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BBON000.60 - 3 fecal coliform violations out of 15 samples during the 2002 assessment period.

1BBON000.60 - 11 total phosphorus values exceeded the screening value out of 15 samples during the 2002 assessment period resulting in a threatened assessment.

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform is not known.

The source of the total phosphorus is not known.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Quail Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B35R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.89 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Massanutten STP discharge

RIVER MILE: 4.89

LATITUDE: 38.40500 **LONGITUDE:** -78.71278

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Boones Run

RIVER MILE: 0.00

LATITUDE: 38.43000 **LONGITUDE:** -78.64000

Segment begins at the Massanutten STP discharge and continues downstream to its confluence with Boones Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BQAL004.30 and 1BQAL005.04 had severely impaired benthic ratings during the 2004 assessment cycle. The exact cause of the severely impaired ratings is the discharge from the Massanutten STP. A TMDL for this parameter has been approved by EPA.

1BQAL004.30 - Three Fecal Coliform values exceeded the standard out of 20 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: PS - STP - Massanutten, NPS

The STP is the source of the benthic impairment.

The source of the Fecal Coliform bacteria is believed to be non-point source runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Quail Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B35R-03

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 1.32 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 6.21

LATITUDE: 38.40917 **LONGITUDE:** -78.73444

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Massanutten discharge

RIVER MILE: 4.89

LATITUDE: 38.40500 **LONGITUDE:** -78.71278

Segment begins at the headwaters and ends at the Massanutten discharge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BQAL005.09 - Had a moderately impaired benthic rating during the 2004 assessment period. The exact cause of the moderately impaired rating is not known but is believed to be due to extremely low flows during the droughts of 1998 - 2002.

IMPAIRMENT SOURCE: Natural Conditions

The source of the benthic impairment is natural sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page, Rockingham

STREAM NAME: Naked Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B36R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 12.46 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 12.46

LATITUDE: 38.50743 **LONGITUDE:** -78.44893

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the SF Shenandoah

RIVER MILE: 0.00

LATITUDE: 38.46956 **LONGITUDE:** -78.62004

Segment begins at the headwaters and continues downstream to its confluence with the S.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting - 1998

IMPAIRMENT CAUSE: General Standard (Benthic) 1998

1BNAK001.24 fully supported the Aquatic Life Use during the 2002 assessment period, however EPA would not approve De-listing. The station was not assessed during the 2004 assessment cycle.

IMPAIRMENT SOURCE: Unknown 1998

Unknown 1998

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page, Rockingham

STREAM NAME: Cub Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B37R-01

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 9.29 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 9.29

LATITUDE: 38.47871 **LONGITUDE:** -78.69572

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with S.F. Shenandoah River

RIVER MILE: 0.00

LATITUDE: 38.55718 **LONGITUDE:** -78.59182

Segment begins at Cub Run's headwaters and continues downstream to its confluence with the S.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform (2004), Temperature

1BCUB000.40 - 8 fecal coliform violations out of 38 samples during the 2004 assessment cycle. 1BCUB000.40 - 6 temperature values exceeded the standard out of 50 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife, Natural Condition

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff. The temperature standard violations are due to natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page

STREAM NAME: Mill Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B38R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.78 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 6.78

LATITUDE: 38.66000 **LONGITUDE:** -78.52000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with S.F. Shenandoah River

RIVER MILE: 0.00

LATITUDE: 38.62000 **LONGITUDE:** -78.50000

Segment begins at Mill Creek's headwaters and continues downstream to its confluence with the S.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BMLC000.40 - 17 fecal coliform violations out of 50 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is from NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page

STREAM NAME: Pass Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B39R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.05 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 9.05

LATITUDE: 38.70861 **LONGITUDE:** -78.45583

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Hawksbill Creek confluence

RIVER MILE: 0.00

LATITUDE: 38.65250 **LONGITUDE:** -78.32694

Segment begins at the headwaters and ends at the Hawksbill Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BPSS000.64 - 17 fecal coliform violations out of 28 samples and 5 E. Coli violations out of six samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform bacteria is believed to be NPS and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page

STREAM NAME: Hawksbill Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B39R-02

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 12.26 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 19.30

LATITUDE: 38.51944 **LONGITUDE:** -78.44444

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with East Hawksbill Creek

RIVER MILE: 7.04

LATITUDE: 38.65639 **LONGITUDE:** -78.46167

Segment begins at the headwaters and continues downstream to the East Hawksbill Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, Temperature (2002)

1BHKS009.58 - 10 fecal coliform violations out of 22 samples and 2 E. Coli violations out of 6 samples during the 2004 sampling period.
1BHKS009.58 - 4 temp violations out of 15 samples during the 2004 assessment cycle.

1BHKS000.96 - Fully supported the Recreation Use during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife, Natural Condition

The source is believed to be NPS agricultural and wildlife runoff. The source of the temperature impairment is natural.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page

STREAM NAME: Rocky Branch

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B39R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.17 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 4.17

LATITUDE: 38.69672 **LONGITUDE:** -78.32256

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Pass Run confluence

RIVER MILE: 0.00

LATITUDE: 38.67544 **LONGITUDE:** -78.38363

Segment begins at the headwaters and ends at the Pass Run confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

0163054325 - 2 pH minimum standard violations out of 2 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: Acid Deposition

The source of the pH violations is believed to be acid deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page

STREAM NAME: Jeremy's Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B40R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 10.97 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 10.97

LATITUDE: 38.75911 **LONGITUDE:** -78.30588

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the S.F. Shenandoah River confluence

RIVER MILE: 0.00

LATITUDE: 38.76938 **LONGITUDE:** -78.39196

Segment begins at the headwaters and ends at the S.F. Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

01630565 - 2 pH minimum standard violations out of 2 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: Acid Deposition

The source of the pH violations is believed to be acid deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Warren

STREAM NAME: Flint Run

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B40R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 11.46 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 11.46

LATITUDE: 38.79233 **LONGITUDE:** -78.28261

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the S.F. Shenandoah River confluence

RIVER MILE: 0.00

LATITUDE: 38.86770 **LONGITUDE:** -78.25788

Segment begins at the headwaters and ends at the S.F. Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BFNT002.16 - 3 Fecal Coliform violations out of 12 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS

The source is believed to be Non-Point source runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Warren

STREAM NAME: Happy Creek

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-B41R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.44 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 8.44

LATITUDE: 38.84287 **LONGITUDE:** -78.19127

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the S.F. Shenandoah River confluence

RIVER MILE: 0.00

LATITUDE: 38.94437 **LONGITUDE:** -78.18802

Segment begins at headwaters and ends at the S.F. Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BHPY001.29 - 6 Fecal Coliform violations out of 12 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS

The source is believed to be Non-Point source runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Little Dry River

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B43R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 33.9 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 33.9

LATITUDE: 38.62852 **LONGITUDE:** -79.07931

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the N. Fork Shen River

RIVER MILE: 0.00

LATITUDE: 38.66190 **LONGITUDE:** -78.92293

Segment begins at the headwaters and ends at the N. Fork Shen River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

1BLTD001.15 - 4 Fecal Coliform violations out of 19 samples and 2 pH minimum standard violations out of 19 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: Atmospheric Deposition, NPS

The source of the Fecal Coliform Bacteria is Non-Point Source runoff.

The source of the pH violations is believed to be acid deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Long Meadow Run

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B45R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.62 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 8.62

LATITUDE: 38.54028 **LONGITUDE:** -78.80056

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the N. Fork Shen River

RIVER MILE: 0.00

LATITUDE: 38.63611 **LONGITUDE:** -78.74944

Segment begins at the headwaters and ends at the N. Fork Shen River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BLOM000.24 - Had a moderately impaired benthic rating during the 2004 assessment period. The exact cause of the moderately impaired benthic rating is not known.

IMPAIRMENT SOURCE: NPS - Agriculture

The source is believed to be NPS agricultural activity.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Turley Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B45R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.04 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 4.04

LATITUDE: 38.59139 **LONGITUDE:** -78.88611

DOWNSTREAM LIMIT:

DESCRIPTION: N. Fork Shen River confluence

RIVER MILE: 0.00

LATITUDE: 38.63333 **LONGITUDE:** -78.84222

Segment begins at the headwaters and ends at the N. Fork Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

1BTRL000.02 - 10 fecal coliform violations out of 27 samples during the 2004 assessment period.

1BTRL000.02 - Had a moderately impaired benthic rating during the 2004 assessment period. The exact cause of the moderately impaired rating is not known.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife, NPS

The primary source of the fecal coliform is NPS agricultural and wildlife runoff.

The source of the benthic impairment is believed to be NPS agricultural activity.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham, Shenandoah

STREAM NAME: North Fork Shenandoah River

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B45R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 52.97 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Turley Creek

RIVER MILE: 90.61

LATITUDE: 38.63344 **LONGITUDE:** -78.84220

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Pugh's Run

RIVER MILE: 37.64

LATITUDE: 38.90053 **LONGITUDE:** -78.47956

Segment begins at the N.F. Shenandoah River's confluence with Turley Creek and continues downstream to its confluence with Pugh's Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BNFS090.16 - 2 fecal coliform violations out of 9 samples during the 2004 assessment period.

1BNFS081.42 - 10 fecal coliform violations out of 50 samples during the 2004 assessment period.

1BNFS070.67 - 9 fecal coliform violations out of 53 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform bacteria is NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: North Fork Shenandoah River

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B45R-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.38 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Runion Creek

RIVER MILE: 95.10

LATITUDE: 38.64444 **LONGITUDE:** -78.86722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Linville Creek

RIVER MILE: 87.72

LATITUDE: 38.62028 **LONGITUDE:** -78.79361

Segment begins at the N.F. Shenandoah River's confluence with Runion Creek and continues downstream to its confluence with Linville Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Attachment B

IMPAIRMENT CAUSE: General Standard (Benthic)

1BNFS094.51 - Benthic Monitoring during the 1998 assessment cycle indicated the Aquatic Life Use was fully supporting. However, EPA allowed this segment to be added to Attachment B of the Consent Decree. Follow up sampling was not done therefore the segment must be listed on the 2004 303(d) list.

IMPAIRMENT SOURCE: Attachment B

Attachment B

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Fridley Run

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B47R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.4 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 2.40

LATITUDE: 38.46500 **LONGITUDE:** -78.71694

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Mountain Run confluence

RIVER MILE: 0.00

LATITUDE: 38.49444 **LONGITUDE:** -78.70333

Segment begins at the headwaters and ends at the Mountain Run confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS - 4074 had a moderately impaired benthic rating during the 2004 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham, Shenandoah

STREAM NAME: Smith Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B47R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 31.18 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 31.18

LATITUDE: 38.47694 **LONGITUDE:** -78.77778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with N.F. Shenandoah R.

RIVER MILE: 0.00

LATITUDE: 38.72806 **LONGITUDE:** -78.63333

Segment begins at Smith Creek's headwaters and continues downstream to its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BSMT004.60 - 9 fecal coliform violations out of 50 samples, 1BSMST028.00 - 2 fecal coliform violations out of 9 samples, 1BSMT031.69 - 7 fecal coliform violations out of 12 samples and 1BSMT023.18 - 10 fecal coliform violations out of 18 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The primary source of the fecal coliform is from NPS agricultural runoff and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Rockingham

STREAM NAME: Mountain Run

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B47R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.41 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 5.41

LATITUDE: 38.50111 **LONGITUDE:** -78.69667

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Smith Creek confluence

RIVER MILE: 0.00

LATITUDE: 38.50472 **LONGITUDE:** -78.75139

Segment begins at the headwaters and ends at the Smith Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS biological monitoring station 4076 had a moderately impaired benthic rating during the 2004 assessment period.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Harrisonburg, Rockingham

STREAM NAME: Smith Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B47R-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 22.39 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence with Lacey Springs

RIVER MILE: 22.39

LATITUDE: 38.54083 **LONGITUDE:** -78.76028

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with N.F. Shenandoah R.

RIVER MILE: 0.00

LATITUDE: 38.72806 **LONGITUDE:** -78.63333

Segment begins at Smith Creek's confluence with Lacey Springs and continues downstream to its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting 1998

IMPAIRMENT CAUSE: General Standard (Benthic) 1998

The biological monitoring station at river mile 5.71 & 6.62 were assessed as fully supporting during the 2004 assessment period. Despite the Fully Supporting Assessment EPA will not allow De-Listing of this segment.

IMPAIRMENT SOURCE: NPS - 1998

NPS 1998

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY:

STREAM NAME: Dry Fork

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B47R-06

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 10.11 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 10.11

LATITUDE: 38.45253 **LONGITUDE:** -78.84166

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Smith Creek confluence

RIVER MILE: 0.00

LATITUDE: 38.53909 **LONGITUDE:** -78.75820

Segment begins at the headwaters and ends at the Smith Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BDFK000.76 - 6 Fecal Coliform violations out of 8 samples during the 2004 assessment cycle.

A TMDL is being developed in the Smith Creek watershed.

IMPAIRMENT SOURCE: NPS

The source of the impairment is believed to be NPS runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page, Rockingham, Shenandoah

STREAM NAME: Mill Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B48R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 19.78 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 19.78

LATITUDE: 38.71704 **LONGITUDE:** -78.84057

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the N.F. Shen R.

RIVER MILE: 0.00

LATITUDE: 38.74161 **LONGITUDE:** -78.63745

Segment begins at Mill Creek's headwaters and continues downstream to its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting (12.39 Miles)

IMPAIRMENT CAUSE: Fecal Coliform, General Standard Bentiic (1998 7.6 miles), Temperature (12.39 Miles

1BMIL002.20 - 11 fecal coliform violations out of 30 samples during the 2004 assessment period.

1BMIL002.20 - Had a Moderately Impaired benthic assessment during the 2004 assessment cycle.

1BMIL002.20 - 5 temperature violations out of 37 samples during the 2004 assessment period (12.39 Miles).

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife, Unknown, Natural (12.39 Miles)

The primary source of the fecal coliform is from NPS agricultural runoff and wildlife runoff.

The source of the benthic impairment is unknown.

The temperature impairment is natural (12.39 Miles).

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Stony Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B49R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.65 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the George's Chicken Discharge

RIVER MILE: 5.65

LATITUDE: 38.85972 **LONGITUDE:** -78.62083

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the N.F. Shen R confluence

RIVER MILE: 0.00

LATITUDE: 38.82222 **LONGITUDE:** -78.54889

Segment begins at the George's Chicken Discharge and ends at the North Fork confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BSTY001.22 - 2 fecal coliform violations out of 9 samples during the 2004 assessment cycle.

1BSTY004.24 - Fully supported the Aquatic Life Use during the 1998 & 2004 assessment cycles. However, EPA improperly allowed this station to be added to Appendix B of the 1998 Consent Decree and now refuses to allow it to be De-Listed.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The source is believed to be NPS agricultural and wildlife runoff.

Since there is no actual benthic impairment there is no source.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Stony Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B49R-02

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 18.43 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the Foltz Creek confluence.

RIVER MILE: 18.43

LATITUDE: 38.85435 **LONGITUDE:** -78.72750

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the North Fork confluence

RIVER MILE: 0.00

LATITUDE: 38.82222 **LONGITUDE:** -78.54889

Segment begins at the Foltz Creek confluence and ends at the North Fork confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Temperature

1BSTY001.22 & 1BSTY005.85 - 7 temperature violations out of 42 samples during the 2004 assessment cycle.

The segment was shortened because new monitoring in the upper part of the watershed during the 2004 assessment cycle indicated no impairment.

IMPAIRMENT SOURCE: Natural Conditions

The source is natural.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY:

STREAM NAME: Stony Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B49R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.48 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the Foltz Creek Confluence

RIVER MILE: 18.43

LATITUDE: 38.85435 **LONGITUDE:** -78.72750

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Little Stony Creek confluence

RIVER MILE: 11.95

LATITUDE: 38.89444 **LONGITUDE:** -78.66535

Segment begins at the Foltz Creek confluence and ends at the Little Stony Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BSTY013.85 - 2 fecal coliform violations out of 8 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS - Agriculture/Wildlife

The source is believed to be NPS agricultural and wildlife runoff.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Laurel Run

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B49R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.15 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 5.15

LATITUDE: 38.91472 **LONGITUDE:** -78.72917

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the confluence with Stony Creek

RIVER MILE: 0.00

LATITUDE: 38.87066 **LONGITUDE:** -78.69051

Segment begins at the headwaters and ends at the Stony Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS 4002 - Had a Moderately Impaired benthic rating during the 2004 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source is believed to be atmospheric deposition.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Toms Brook

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B50R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.18 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 7.18

LATITUDE: 38.96000 **LONGITUDE:** -78.49000

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with N.F. Shen R

RIVER MILE: 0.00

LATITUDE: 38.92389 **LONGITUDE:** -78.41944

Segment begins at Toms Brook's headwaters and continues downstream until its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

1BTMB000.54 - Had a moderately impaired benthic rating during the 2004 assessment period. The exact cause of the moderately impaired rating is not known.

A TMDL is being developed for this parameter.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Narrow Passage Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B50R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 10.69 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 10.69

LATITUDE: 38.93056 **LONGITUDE:** -78.61722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the N.F. Shen R.

RIVER MILE: 0.00

LATITUDE: 38.84583 **LONGITUDE:** -78.52861

Segment begins at the headwaters and ends at the North Fork confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BNPC000.02 - 3 fecal coliform violations out of 13 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS

The source of the fecal coliform bacteria is believed to be Non-Point Source run off.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Pughs Run

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B50R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.88 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 5.88

LATITUDE: 38.93140 **LONGITUDE:** -78.54967

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with N.F. Shen R

RIVER MILE: 0.00

LATITUDE: 38.90053 **LONGITUDE:** -78.47956

Segment begins at Toms Brook's headwaters and continues downstream until its confluence with the N.F. Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BPGH000.60 - 5 Fecal Coliform violations out of 18 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS

The source is believed to be NPS.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Tumbling Run

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B51R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.05 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 4.05

LATITUDE: 39.02749 **LONGITUDE:** -78.42735

DOWNSTREAM LIMIT:

DESCRIPTION: One tenth of a mile North of the Rt 601 Bridge.

RIVER MILE: 0.00

LATITUDE: 38.97759 **LONGITUDE:** -78.39702

Segment begins at Tumbling Run's headwaters and continues downstream to a point approximately one tenth of a mile north of the Rt 601 bridge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BTBL001.27 - 2 Fecal Coliform violations out of 12 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS

The source is believed to be NPS.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Cedar Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B52R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 18.94 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 39.03

LATITUDE: 38.95139 **LONGITUDE:** -78.58722

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Duck Run

RIVER MILE: 20.09

LATITUDE: 39.10056 **LONGITUDE:** -78.39333

Segment begins at the headwaters and ends at the confluence with Duck Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Temperature

1BCDR023.47 - 3 temperature violations out of 18 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: Natural Conditions

The source of the impairment is due to natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah

STREAM NAME: Cedar Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B52R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.53 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 39.03

LATITUDE: 38.95153 **LONGITUDE:** -78.58714

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with an unnamed tributary.

RIVER MILE: 36.50

LATITUDE: 38.97492 **LONGITUDE:** -78.55826

Segment begins at the headwaters and ends at the confluence with an unnamed tributary.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

USFS 4003 - Had a severely impaired benthic rating during the 2004 assessment period. The exact cause of the impairment is not known.

IMPAIRMENT SOURCE: Atmospheric Deposition

The source of the impairment is believed to be due to Atmospheric Deposition .

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Shenandoah, Warren

STREAM NAME: Passage Creek

HYDROLOGIC UNIT: 02070006

TMDL ID: VAV-B54R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 18.52 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the Peters Mill Creek confluence

RIVER MILE: 18.52

LATITUDE: 38.83631 **LONGITUDE:** -78.41744

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the N.F. Shenandoah River

RIVER MILE: 0.00

LATITUDE: 38.97693 **LONGITUDE:** -78.27002

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BPSG001.36 - Had six Fecal Coliform values exceed the standard out of 49 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS

The source is believed to be NPS.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Warren

STREAM NAME: Manassas Run

HYDROLOGIC UNIT: 02070007

TMDL ID: VAV-B55R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 14.73 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 14.73

LATITUDE: 38.88899 **LONGITUDE:** -78.09698

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Shenandoah River

RIVER MILE: 0.00

LATITUDE: 38.95814 **LONGITUDE:** -78.12214

Segment begins at the headwaters and ends at the Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BMAN002.55 - 3 fecal coliform violations out of 9 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS

The source is believed to be NPS.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Frederick, Warren

STREAM NAME: Crooked Run

HYDROLOGIC UNIT: 02070007

TMDL ID: VAV-B56R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 12.83 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 12.83

LATITUDE: 39.07250 **LONGITUDE:** -78.16639

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Shenandoah River

RIVER MILE: 0.00

LATITUDE: 38.95694 **LONGITUDE:** -78.18222

Segment begins at the headwaters and ends at the Shenandoah River confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BCRO002.75 - 4 fecal coliform violations out of 17 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS

The source is NPS

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Frederick, Warren

STREAM NAME: Stephens Run

HYDROLOGIC UNIT: 02070007

TMDL ID: VAV-B56R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.88 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Begins at the headwaters

RIVER MILE: 7.88

LATITUDE: 39.10513 **LONGITUDE:** -78.25504

DOWNSTREAM LIMIT:

DESCRIPTION: Ends at the Crooked Run confluence

RIVER MILE: 0.00

LATITUDE: 39.01401 **LONGITUDE:** -78.16891

Segment begins at the headwaters and ends at the Crooked Run confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BCRO002.75 - 4 fecal coliform violations out of 17 samples during the 2004 assessment period.

IMPAIRMENT SOURCE: NPS

The source is NPS.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Clarke

STREAM NAME: Spout Run & Page Brook Run

HYDROLOGIC UNIT: 02070007

TMDL ID: VAV-B57R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 12.47 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters of Page Brook Run

RIVER MILE: 12.47

LATITUDE: 39.14188 **LONGITUDE:** -78.04611

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Shenandoah River

RIVER MILE: 0.00

LATITUDE: 39.07083 **LONGITUDE:** -78.00306

Segment begins at Spout Run's headwaters and continues downstream to its confluence with the Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

1BSPR000.40 - Had a severely impaired benthic rating during the 2004 assessment period. The exact cause of the moderately impaired rating is not known.

1BSPR000.40 - 9 fecal coliform violations out of 40 samples during the 2004 assessment cycle.

1BPGE000.09 - 7 fecal coliform violatons out of 9 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS, NPS

The primary source iof the fecal coliform bacteria is NPS runoff.

The source of the benthic impairment is believed to be NPS runoff.

Page Brook Run was added to this segment in 2004 because it is a major tributary in a small watershed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Clarke

STREAM NAME: Long Branch

HYDROLOGIC UNIT: 02070007

TMDL ID: VAV-B57R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.62 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters

RIVER MILE: 3.62

LATITUDE: 39.04534 **LONGITUDE:** -78.07669

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the Shenandoah River

RIVER MILE: 0.00

LATITUDE: 39.02251 **LONGITUDE:** -78.02179

Segment begins at Long Branch's headwaters and continues downstream to its confluence with the Shenandoah River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

1BLNG000.24 - 3 fecal coliform violations out of 8 samples during the 2004 assessment cycle.

IMPAIRMENT SOURCE: NPS

The source is believed to be NPS.

Fact Sheets for Category 5 Waters

RIVER BASIN: Potomac River & Shenandoah River Basins

CITY/COUNTY: Page, Warren

STREAM NAME: South River/S.F. Shen R./N.F. Shen R./Shenando

HYDROLOGIC UNIT: 02070005

TMDL ID: VAV-Hg

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 128.82 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Begins at DuPont foot bridge

RIVER MILE: 128.82

LATITUDE: 38.06111 **LONGITUDE:** -78.88667

DOWNSTREAM LIMIT:

DESCRIPTION: Warrenton Power Dam

RIVER MILE: 0.00

LATITUDE: 38.95417 **LONGITUDE:** -78.14833

Segment begins at the DuPont foot bridge over the South River in Waynesboro, continues downstream to the headwaters of the S.F. Shenandoah River (23.89 - 0.00) . The entire S.F. Shenandoah River is included (100.97 - 0.00). The segment ends on the main stem of the Shenandoah River at the Warrenton Power Dam (41.62 - 38.09). This segment also includes a small section of the lower N.F. Shenandoah River from its mouth upstream to the Riverton Dam (0.43 - 0.00).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury has been found in fish tissue and sediments at values high enough for the VDH to issue a fish consumption advisory.

IMPAIRMENT SOURCE: VDH Health Advisory (Mercury)

The source of the Mercury is from a process that was abandoned by DuPont in the early 1950s.